WESTERN GAS

September 1925

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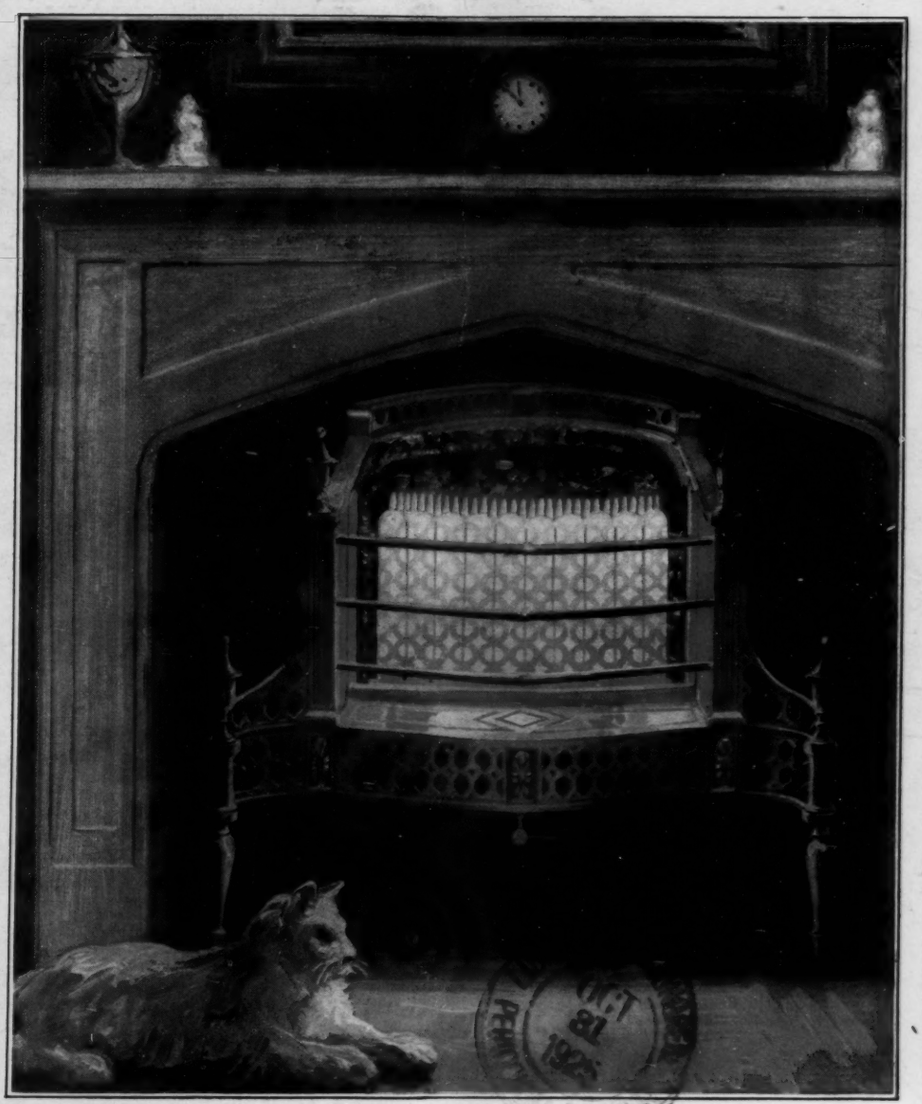

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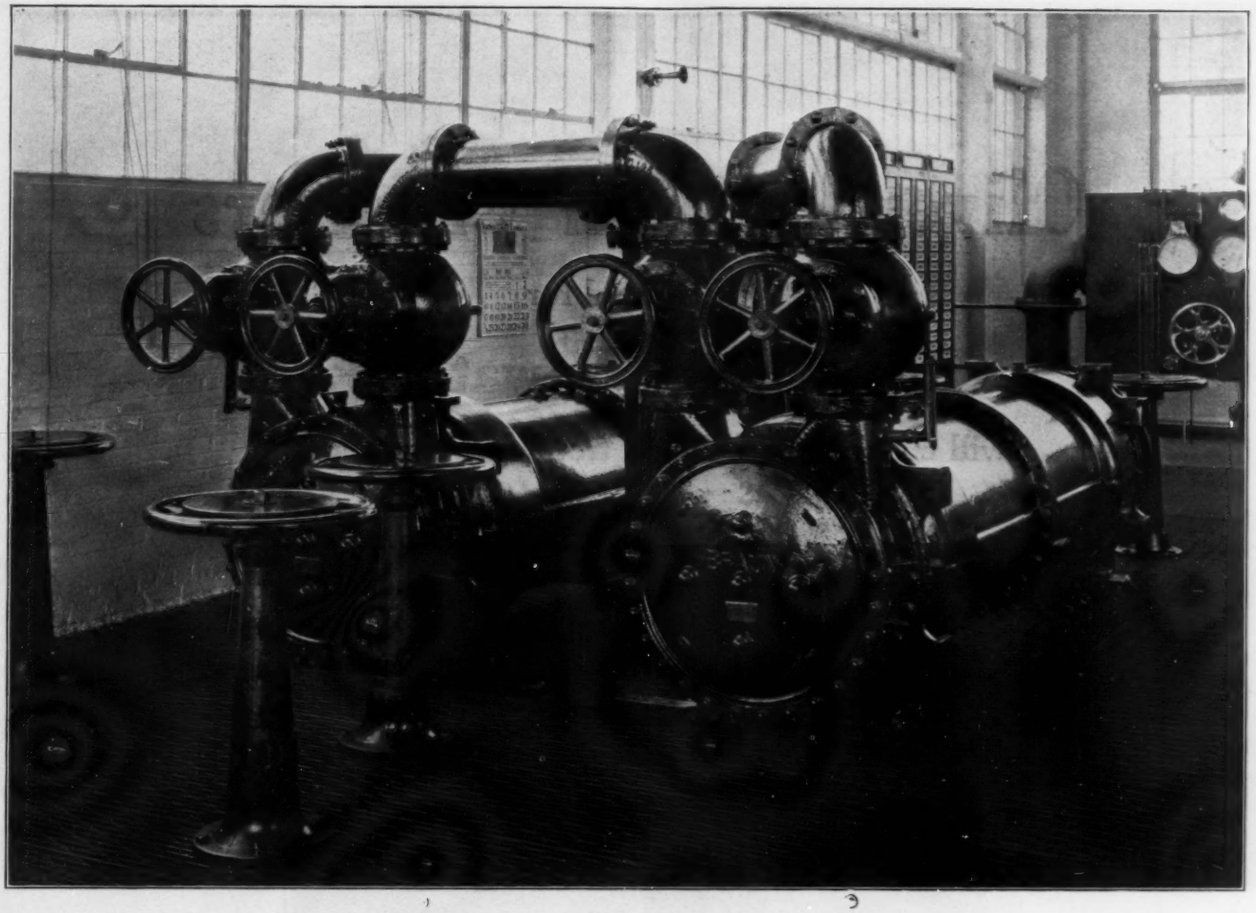

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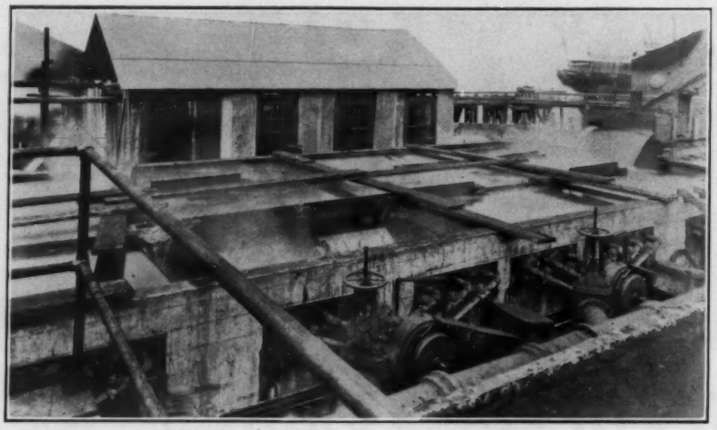

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Mrs. Average Housewife is pretty much the same the whole Pacific Coast over. Her home in Puente is fully as modern and convenient as the one in Portland although the architecture may be entirely different. In Puyallup she is just as discerning about the necessities used daily in her kitchen as is her sister in the more metropolitan districts.

She represents a valuable market for both gas appliances and gas. Appliance manufacturers as well as gas companies will do well to cater to the wishes of Mrs. Average Housewife. What if she struggles along today on a 2-burner hot plate? Tomorrow she may purchase a completely equipped, modern gas range.

Day in and day out her gas meter tells the story of gas consumption. If her bill for the volume of gas burned at the end of the year falls below the average, it is not entirely her fault. She probably has not been "sold" on your new gas range, your late model heater or your automatic water heater.

Mrs. Average Housewife can be educated to use more gas in her home. She no longer toils from daylight to dark in her kitchen as did her grandmother. She reads the women's magazines studiously to keep abreast of improvements in home economics.

The Housewife in every community is waiting to be "sold" on your product. Through a neighbor she may know something of the convenience of the oven heat control but she has not been educated to the point where she will buy. Concerted effort and a well directed campaign on your part can only result fruitfully.

Do not overlook her, Mrs. Average Housewife, another day. Whether in Puyallup, Puente or Portland, she is your potential consumer.

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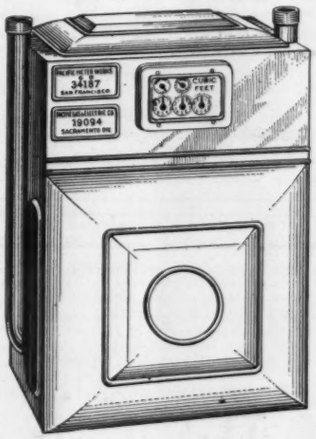

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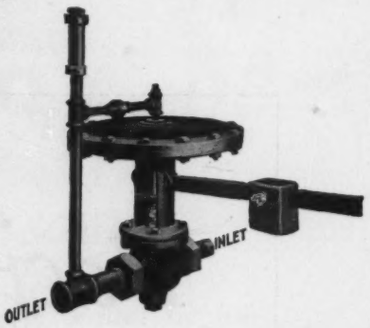

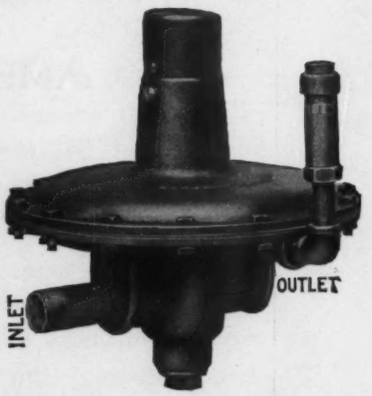

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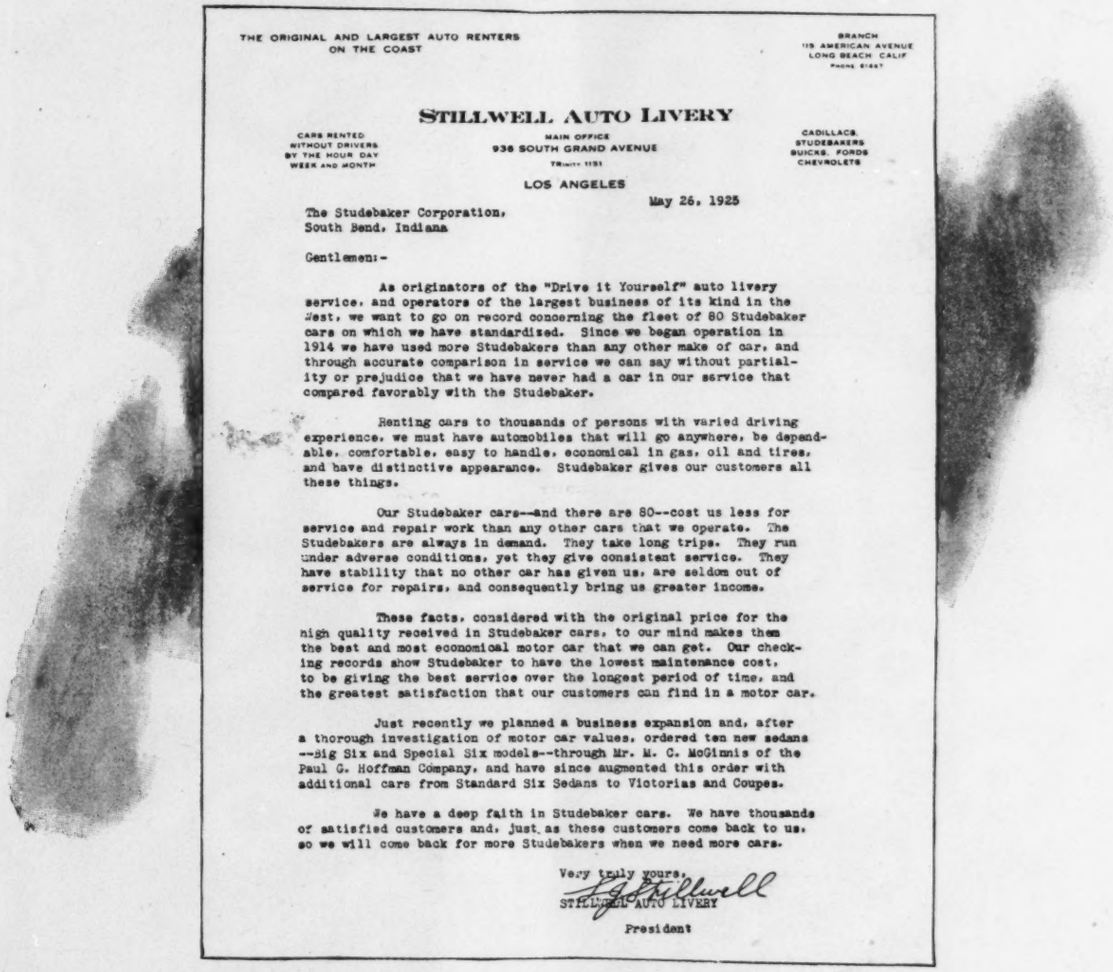

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LOS ANGELES

May 26, 1925

The Studebaker Corporation,
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Gentlemen:-

As originators of the "Drive it Yourself" auto livery service, and operators of the largest business of its kind in the West, we want to go on record concerning the fleet of 80 Studebaker cars on which we have standardized. Since we began operation in 1914 we have used more Studebakers than any other make of car, and through accurate comparison in service we can say without partiality or prejudice that we have never had a car in our service that compared favorably with the Studebaker.

Renting cars to thousands of persons with varied driving experience, we must have automobiles that will go anywhere, be dependable, comfortable, easy to handle, economical in gas, oil and tires, and have distinctive appearance. Studebaker gives our customers all these things.

Our Studebaker cars--and there are 80--cost us less for service and repair work than any other cars that we operate. The Studebakers are always in demand. They take long trips. They run under adverse conditions, yet they give consistent service. They have stability that no other car has given us, are seldom out of service for repairs, and consequently bring us greater income.

These facts, considered with the original price for the nigh quality received in Studebaker cars, to our mind makes them the best and most economical motor car that we can get. Our checking records show Studebaker to have the lowest maintenance cost, to be giving the best service over the longest period of time, and the greatest satisfaction that our customers can find in a motor car.

Just recently we planned a business expansion and, after a thorough investigation of motor car values, ordered ten new sedans --Big Six and Special Six models--through Mr. M. C. McGinnis of the Paul G. Hoffman Company, and have since augmented this order with additional cars from Standard Six Sedans to Victorias and Coupes.

We have a deep faith in Studebaker cars. We have thousands of satisfied customers and, just as these customers come back to us, so we will come back for more Studebakers when we need more cars.

Very truly yours,
STILLWELL AUTO LIVERY
President

THIS letter speaks volumes! It tells the story of Studebaker performance in the most convincing way. And this is only one of hundreds of recorded experiences that prove beyond any shadow of doubt that the sturdy "one-profit" Studebaker is the most practical car for salesmen.

Many concerns supply their salesmen with 4-cylinder cars on account of the low first cost. But experience proves that a 6-cylinder car is more profitable, enabling the salesman to produce more business because of the greater comfort and prestige it yields.

As Mr. Stillwell's letter shows, in the case of Studebaker cars the slightly higher purchase price is more than offset by superior performance and by a final operating cost practically as low as that of a 4-cylinder car.

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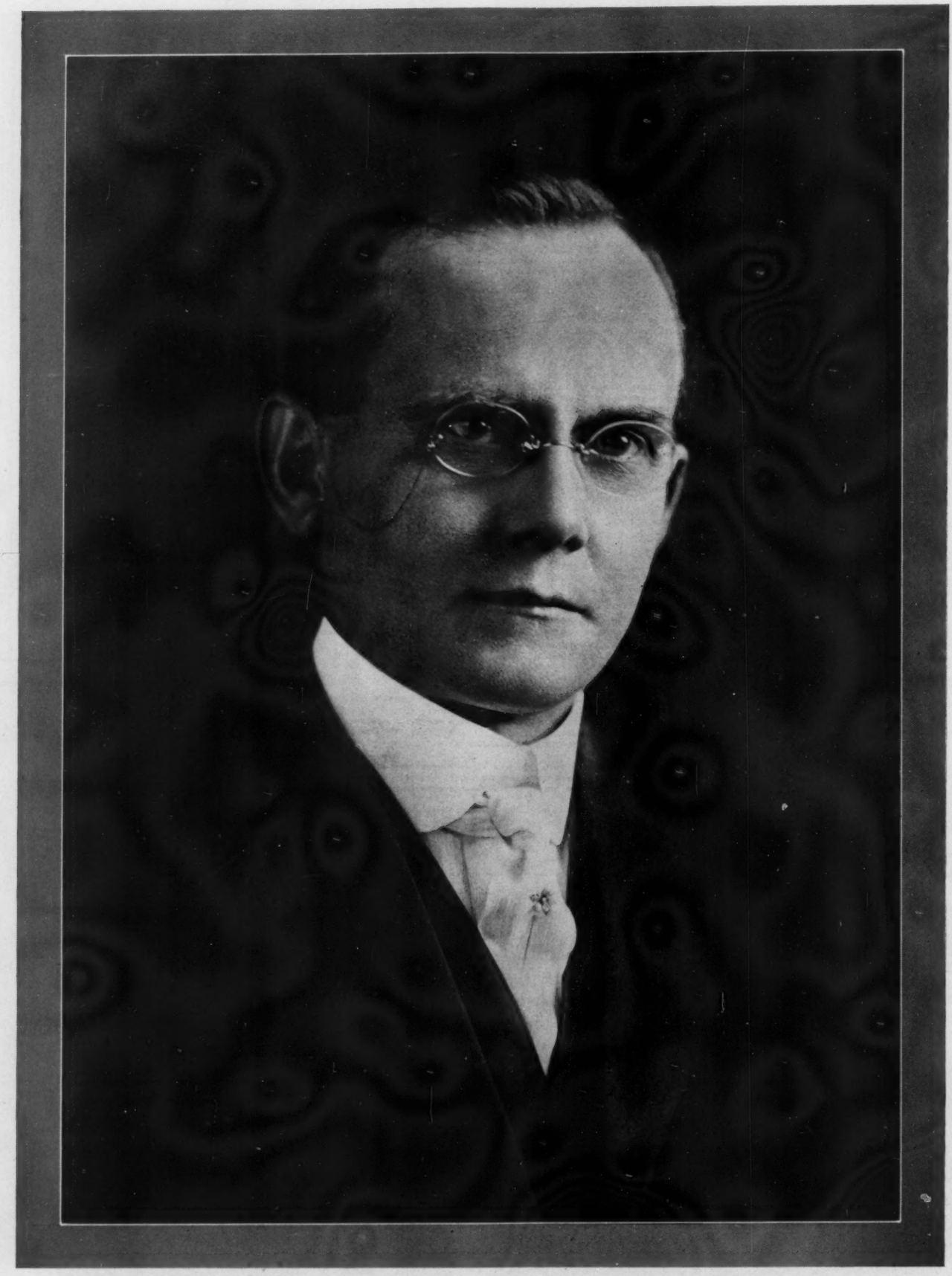

F. J. Schafer, General Manager of the Southern California Gas Company, Los Angeles, who was Elected President of the Pacific Coast Gas Association for the Year 1925-1926 on August 17th at the Annual Convention at Portland, Ore.

WESTERN GAS

A Monthly Journal of the Gas, Gas Appliance and Natural Gasoline Industries in the *Eleven Western States*

A Word *to the* Wise

From the President of the Pacific Coast Gas Association to Its Many Members Far and Near

By F. J. SCHAFER
President-Elect of Pacific Coast Gas Association

WHAT might have been the greatest nation in all history, greatest in every sense and definition of the word from the standpoint of wealth, of power, as well as of the intellect, was impoverished and strangled by a system of debarment that would and did prevent intercourse, or relations of any character whatever, with the other peoples of the world.

China, to the end of national stagnation,—unlooked for as it may have been by the original promoters,—by a union of labor with military force, built the great wall of exclusion with the trowel or chisel in one hand and an implement of warfare in the other.

A Glance at the Past

In some such similar manner the public utilities of the past,—more especially the gas industry,—built up a wall of secrecy which led to more or less misunderstanding between themselves and the general public. It is not beyond the memory of men, old in the gas business, to recall the days when it was considered necessary to literally arm employees so that they might carry on the duties intrusted to them in connection with the supply of gas to some communities.

Such conditions are not found today on our Pacific Coast or in the United States, and we have every reason to believe that they have gone, and gone to stay; but let us not forget that, while armed force is no longer required, we do need to protect ourselves against a remaining few uninformed or misguided agitators, who seek to lead the public to believe that public utilities are different from other organizations in that they are founded on deceitful and criminal methods, by means of which they are filling their overflowing coffers with ill-gotten gold wrung from a suffering humanity, helpless in the clutches of a grasping octopus. It is against such as these that a great deal of effort has been directed, and their dwindling number has so far decreased as to leave the public mind open and free towards public utilities in general and gas companies in particular.

During the days of strife (physical and forensic) we of the gas industry who are still here, and those who have gone on, were engaged principally in the problems of gas manufacture, gas distribution, and gas utilization, and, from a strictly mechanical viewpoint, every effort was made to produce the most economical as well as most convenient fuel known to science.

Where Emphasis is Due

On our Pacific Coast we laid thousands of miles of gas mains and expended hundreds of millions of dollars in plants and equipment. Men have been busy, in the surge of battle and the heat of day, to bring to perfection every phase of the gas business, until today, beginning with the raw material in storage, and ending with the customer's bill for gas, we are approaching the infallible, except for the one predominating factor, that of Public Relations.

This problem is the greatest and the most far reaching confronting the gas industry of today and since the public is now in a receptive frame of mind, and since the demand for public utility securities, both here and in the east, indicates a public confidence such as never existed before, now is the time to make a definite and lasting impression in favor of the individual gas company, as well as of the gas industry as a whole. The comparatively few who are unfriendly to us are at least not antagonistic; and there is ready for us a foundation of reliance, trust, and faith, upon which we may build a structure of mutual understanding and esteem, which will shield the industry as well as protect the public, upon which this industry depends for its existence, from the pernicious activities of the unprincipled demagogue.

Telling the Public

Let the public understand in an unmistakable way that the old and long since dead policy of "the public be damned" has been changed to that of "the public be told." Let the public become thoroughly familiar with the fact that the days of silence are over, that the walls of exclusion are broken down, that the doors of concealment are wide open, and that "courtesy and fair dealing" as between man and man is the watchword of the day.

The golden crown of service of the Pacific Coast Gas Association is graced with four major jewels, namely four sections known as the Technical, the Accounting, the Commercial, and that of Public Relations, but the brightest of the four is the last. Each is indispensable in its way, but the brain that guides the destinies of Public Relations is the brain that makes or breaks the gas company.

The greatest asset of any public utility consists, not in down-to-the-minute production and distribution equipment; not in an ample and perfected accounting system, nor in an elaborately methodical commercial department, but the real secret of success or failure lies in her manner of intercourse with the public.

Gas Fraternity *of* West Gathers *at* Portland *for* Annual P. C. G. A. Convention

By Jay E. Jenkins

A STORY of new accomplishments and Association progress was written into the annals of the Pacific Coast Gas industry when delegates gathered in Portland, Ore., on August 17 for the five-day session of the Association's 32nd annual convention. Portland, the Portland Gas and Coke Company, and the committee on arrangements played hosts with a finesse that did them credit and left lasting impressions in the memories of the 287 Association members and wives and daughters of members who registered for the sessions.

Comment was general on the smoothness with which convention arrangements were handled, and due mention in this regard should be made of the work of Clifford Johnstone, executive secretary, Geo. L. Myers, chairman of the committee on arrangements, and W. H. Barton, who was in charge of entertainment for the ladies. Ladies attendance, especially in view of the "far-north" location of the convention, was remarkable, as the accompanying illustration shows. The illustration is a group view taken at the Crown Point Chalet on the Columbia River Highway.

Wide Representation

The gas fraternity of our great Western territory was strongly represented in Portland, as anyone who glanced at the convention register will testify. Hawaii had her delegates, and so did Panama and British Columbia—and even the Atlantic Coast was there in force. In fact, from an attendance standpoint, as well as from that of quality of program and entertainment provided, the 32nd convention is a highlight in P.C.G.A. history.

August 17 was an important day in the Portland sessions, from the welcome delivered by Mayor Baker of Portland, through the able address of retiring president E. L. Hall, to the election of officers, all of which featured the general session of the opening day.

Leadership for 1926

F. J. Schafer, general manager of the Southern California Gas Company, Los Angeles, will head Association enterprises as president for 1925-26, as determined at the August 17 election. W. S. Yard of the Pacific Gas and Electric Company was chosen as vice-president, and Clifford Johnstone and D. G. Martin were respectively re-elected to the posts of executive secretary and treasurer of the Association. The following were elected to the directorate: H. M. Crawford, J. E. Kelly, D. G. Young, W. M. Thompson, H. L. Masser, G. P. Egleston. Retiring president E. L. Hall automatically becomes an Association director. L. M. Klauber and F. S. Wade were appointed to the directorate to fill out the list of directors to the total called for in the new constitution, as adopted during the late convention.

The four sectional chairmen have already been appointed by President Schafer: W. E. Houghton, Los Angeles, chairman of accounting section; T. J. Protheroe, Los Angeles, chairman of commercial section; W. H. Barton, Portland, chairman of public delations section; Frank Wills, San Francisco, chairman of technical section.

Association Leadership 1925-1926

President, F. J. Schafer, Los Angeles; Vice President, W. S. Yard, San Francisco; Secretary, Clifford Johnstone, San Francisco; Treasurer, D. G. Martin, San Francisco.

DIRECTORS

H. M. Crawford, San Francisco; G. P. Egleston, San Francisco; E. L. Hall, Portland; J. E. Kelley, Stockton; H. L. Masser, Los Angeles; W. M. Thompson, Pasadena; D. J. Young, Tacoma; L. M. Klauber, San Diego; F. S. Wade, Los Angeles.

SECTION CHAIRMEN

Chairman of Accounting Section, W. E. Houghton, Los Angeles; Chairman of Commercial Section, T. J. Protheroe, Los Angeles; Chairman of Public Relations Section, W. H. Barton, Portland; Chairman of Technical Section, Frank Willis, San Francisco.

Next Convention in Los Angeles

Selection of Los Angeles as Convention City for 1926 brought elation to Southern California delegates, and plans are already forming to extend a measure of hospitality that will equal Portland's.

Wednesday, August 19, will long remain in the memory of convention delegates as the day devoted to the Mount Hood trip. Here again the foresight of the committee on arrangements was evident. Sixty-five automobiles took off for the Columbia River Highway drive, followed by an empty car for "stalled" sightseers, and by a trouble car containing three mechanics. Luncheon, dinner and dance were in order en route, and altogether the Mount Hood trip was the highwater mark of the convention, from an entertainment viewpoint.

Weston Wins Golf Trophy

No mention of entertainment would be complete unless it included the golf tourney of Thursday afternoon, August 20, in which wonders were performed with the elusive white sphere by contenders for the Babcock-Basford-Pederson Trophy. Ernest Weston of the

(Continued on Page 37)

Future Gas Making Fuel *on the* Pacific Coast

The Price of Oil is Mounting While the Quality Drops, Bringing a Need for Substitution of Other Fuels for Gas Manufacture. Research Work is Now Under Way on Pacific Coast

By W. S. Yard
Vice-President, Pacific Gas and Electric Company

THE subject, Future Fuel for Gas Making, was discussed at the Portland meeting of the Pacific Coast Gas Association in 1920. The consensus of opinion then expressed was that the oil gas manufacturers would be able to secure a plentiful oil supply for a number of years and consequently no definite program was made providing for an investigation of the possible use of coal available to the Pacific Coast. Since that time, we have seen the price of oil increase to $2,.00 per barrel, then decline below $1.00 per barrel and again advance. At the present time, it is difficult to foretell just which direction the price may take in the immediate future. However, we are pretty well agreed that the time is not far distant when oil will be too valuable to be used for gas production in the present oil gas processes as operated on the Pacific Coast.

Considerable research and development work has been carried on, with a fair measure of success, for the improvement of existing oil gas processes and also for the development of possible new oil gas processes. We have not kept pace with the very rapid improvements in the distillation and cracking of oil as practiced by the oil refineries. This advance in oil refining practice has nullified any improvements made in the oil gas manufacturing process due to the lower B. t. u. value oil now being supplied for gas making purposes. Residuum oils supplied in 1920 had a B. t. u. value per pound ranging from 18,600 to 19,000. Today the range in heating value is between 18,000 to 18,400 per pound. This has required an increase in the amount of oil used to produce a thousand cubic feet of gas and a plant where accurate records are maintained shows this increased oil consumption to have been as high as fourteen percent.

Research Program Under Way

In addition to the higher price of oil, we are also facing a lower quality product for our gas production due to the ever increasing demands for motor fuel. This demand must be met by the oil refineries with improved distillation and cracking processes. It is realized that this situation is an economic condition which can not be easily changed and that any improvements in the present oil gas processes or development of a new gas process dependent entirely upon oil for fuel will only delay the time when it will be necessary to change to coal for our

W. S. Yard

fuel. The Gas Companies of California, through the California Gas Research Council, in collaboration with the United States Bureau of Mines, have laid out an extensive prgoram and are now actively at work studying the various coals available to the Pacific Coast as a future fuel for gas making purposes. Encouraged by the progress made by the gas companies in the Northwest using Pacific Coast coals, it is hoped that definite recommendations can be made during the coming year and that results obtained will enable a selection of the best type of equipment for the most economical use of coal available to the Coast.

The problem is more or less of a local nature and must be worked out by each company studying the fuel supply available and the process which will render the consumer the best service at lowest cost. A decision on this subject is of general interest, but it will not apply to all companies represented by the Pacific Coast Gas Association due to the large variety of fuels available and local conditions which are of vital importance. In the Northwest, coal is being used in several different processes; Victoria and Vancouver report very good results from the use of sawdust mixed with coal in continuous vertical retorts. Undoubtedly other processes will be perfected for the use of sawdust and waste lumber material as gas making fuels for the Northwest. Several carburetted water gas plants are showing good results using sub-bituminous coal as generator fuel. At Portland, oil gas is produced and the manufacture of by-products, namely, motor fuel and briquettes helps to reduce the cost of gas due to increased oil cost. In central and northern California, oil gas is produced and no by-products sold so that the future fuel supply is of vital importance. In Los Angeles and adjacent territory, the gas supply is mainly natural gas and reformed gas. From present information they have ample reserve for a number of years. San Diego manufactures oil gas and thus we have in the Pacific Coast section, practically every variety of gas manufacturing processes using coal or oil.

Growing Demand for Gas

The future fuel for gas making is a most important subject to the manufacturers of oil gas on account of the very rapid increase in demands for gas supplied by these companies. The large increase in gas consumption due to heating and other new uses has made necessary a continuous construction program for increase of generating and distribution capacities. In order to properly conserve the resources of our companies, it is necessary that generating plants and distribution and transmission systems be designed for future requirements as well as to meet the immediate demands. With this thought in mind, it is very important that we take stock of our future fuel supply for gas making and as soon as possible arrive at some definite understanding as to what the future trend of gas production will be. The gas industry is growing at a very rapid rate and will continue to increase at a faster rate if we can solve our problems and render good efficient service at lower costs per B. t. u. Oil is being used for

(Continued on Page 32)

A paper delivered at the annual convention of the Pacific Coast Gas Association.

Geo. W. Smith, Supt., New Business for Southern Counties Gas Co., at Santa Monica

Miss I. N. Allabach, So. Counties Gas Company's Home Department Director at Santa Monica

Santa Monica Bay District Approves Home Service

By GEORGE H. FINLEY

ABOUT a year ago the "home service department" idea hit the Santa Monica Bay district of the Southern Counties Gas Company. The idea was fostered and allowed to mature, until conditions were propitious for its application, and four months ago home service became a reality with the employment of Miss I. N. Allabach, a trained home economist of wide experience. Miss Allabach was formerly employed in home extension work for the government, in Kentucky.

Home service by gas companies is not a new thing, perhaps, but the conception of its scope and the remarkable degree of progress made in the Santa Monica Bay district in a few short months present some features which are significant to gas appliance retailers and to gas utilities everywhere.

A Broad Scope

Home service demonstrations, as made by the Southern Counties Gas Company's department worker in Santa Monica, would hardly be recognized by the old-time demonstrator, interested only in displaying the merits of some particular gas appliance and talking "good cooking" merely to the end of making a sale. The work of the new home service department aspires to better the whole field of gas service, and to include in its benefits primarily the consumer, and secondarily the retailer of gas appliances and the gas company.

As described by George Smith, superintendent of new business for the Southern Counties Gas Company in the Santa Monica Bay district, the new "home service" is designed to tie in with the merchandising problems of the dealers in this territory.

Dealers here, as elsewhere, are men of diverse interests, marketing many commodities in addition to gas appliances. Their employees are not always recruited from expert gas range and heater salesmen, and sales talks sometime remain in the field of generalities where they should reflect a real knowledge of the appliance.

Too often a retailer fails to recognize the merit of new features introduced in gas appliances, because his attention is divided among several types and kinds of appliances. Before instituting the home service department in the Santa Monica Bay district a survey was made among appliance dealers in that territory. Among other things it was found that not a single dealer was "talking" oven heat control. Oven heat regulators were of course on display, but their value was not being played up. The gas range buying public was being permitted to take inferior articles, simply because the added convenience and economy of the regulator was not "sold."

"We must create a proper sense of value in gas appliances in the minds of both buyer and seller," says Mr. Smith. Apparently the manufacturers and distributors have failed thus far to create sufficient dealer recognition of real values, and right here is one place where the home service worker can perform a needed service, by bringing the housewife's problems forcibly to the attention of the dealer.

The theory back of home service work is very simple, from the "company" angle. It should be primarily understood, according to Mr. Smith, that there is no relation between the merchandising of company appliances and the home service department. The Company maintains an active sales department for merchandising its lines of ranges and heaters in the Santa Monica Bay district, but, this department's work has no connection with home service. Home service aims to espouse the cause of gas and good gas appliances—no matter who sells the latter. "We can't afford to commercialize home service work," is Mr. Smith's statement. Entering into active selling would destroy the department's helpfulness, either to dealers or consumers, for both would rightly view its efforts with a dubious eye. But it is another matter when home service is understood to mean promoting the use of better appliances, encouraging better cookery and more general knowledge of nutrition, and in general "selling" the homekeeper on efficient use of her kitchen.

A Paying Department

As a good-will builder the home service department has few equals; and satisfied consumers are the aim of every

utility. Further, the home service department is a good-will builder that more than pays for itself in dollars and cents. When a high grade range is sold—and the use of high grade appliances is a prime object back of "home service"—several advantages accrue to the company. First, the well-constructed range has durability, and removes the "replacement" evil, with its accompanying possibilities for substitution of a competitive fuel by a dissatisfied user. Second, the use of good appliances brings a reduction of "high bill" complaints, because of the added economy of operation. Third, the good appliance means increased revenue to the gas company, because it is used more.

Definite checks have been made by Miss Allabach, showing increased consumption of gas, following the purchase of a new range. In one case a bill averaged throughout the year about 3200 cubic feet per month, and now runs 3600 cubic feet per month, as a result of the installation of oven heat control and a demonstration by Miss Allabach in the home of the user. The conclusion to be drawn is that when perfect results can be achieved in the kitchen, cooking becomes a pleasure—and the gas meter registers more cubic feet. Home service demonstrations and new appliances are reselling the kitchen to the housewives of Santa Monica Bay district, and new boosters for gas and home service are being gained daily.

Co-operation with Dealers

When a dealer in gas appliances in the Santa Monica Bay district sells a range he is encouraged by the gas company to phone in the name and address of the purchaser—and the chances are that he will do so, for the "home service" idea is gaining in favor among the dealers. The gas company then sends a trouble man to the residence of the buyer and makes the necessary adjustments in the appliance, free of charge, before it goes into use. The home service department director then calls to make an appointment for a demonstration on the new range. She finds what the user is particularly interested in making and makes it, with the housewife's own ingredients, to remove any lingering doubts as to the possibility of securing good results on the new range.

If the demonstrator finds that the housewife is only mildly "sold" on her newly bought range she takes opportunity to play up its good features, and as a result leaves a satisfied buyer to spread good will for the retailer who made the sale. The demonstrations are of course made gratis, and the aim is to provide the homekeeper with just that information which she particularly wants, whether it be the cooking of a particular dish, consideration of food values, forming of menus, the making of budgets, or advice on matters foreign to the kitchen.

The Southern Counties Gas Company is finding a wide field of activity for its home service department, and one that is continually growing. Individual calls are made by the demonstrator on request, no matter whether the request is turned in by a dealer who has just sold a new appliance or comes direct from some old user who has found a need for expert "home" information. The art of cooking is being resold wherever demonstrations are made, and the experience everywhere is that adequate equipment in the kitchen is an all-sufficient inducement to cook—and to enjoy it, especially when the use of modern appliance devices such as the oven heat control insures good results.

Group Work

Parent teachers' associations and church organizations of women throughout the Santa Monica Bay district are developing an increasing demand for Miss Allabach's services as demonstrator and lecturer. Unsolicited requests are coming in and are meeting a willing acceptance, for they present opportunity to spread the gospel of the ideal fuel. In her talks and demonstrations Miss Allabach recommends the economical use of gas, and gives practical hints on how to obtain maximum results for minimum cost. Nutritional topics are found especially appropriate for lectures to groups, and these lectures often result in requests for individual demonstrations.

One field in which some pioneering for additional and more efficient use of gas is to be done in the Santa Monica Bay district is that of the school. School kitchens properly equipped with modern gas appliances are essential, to Mr. Smith's mind, if the next generation of home-keepers is to acquire a real knowledge of cooking, and an appreciation of the ideal qualities of gas. The home service department should be invaluable in carrying this idea to the schools.

The Company is lending every possible encouragement to the home service idea. On one occasion a church organization was given permission to use the rear of the gas company office in which to hold a merchants' lunch, with mutually good results from the accommodation. In all lines it is the aim to "exceed the expected," in service. For example, the Company is legally required to make adjustments of appliances after they have been on the users' premises a reasonable length of time—and reasonable length is usually understood to be approximately six months; but in the Santa Monica Bay district appliances are adjusted free of charge whenever requests for trouble service come in, regardless of how long the appliances have been installed.

The new home service activity is gaining much recognition for the Company, both from retailers and from consumers. "Retailers," to quote Mr. Smith, "realize the value of satisfied customers as well as does a gas company, and they appreciate our home service demonstrations to that end."

A Growing Service

Home service activities will never remain static in the Santa Monica Bay district. Plans are under way at present to organize a co-operative cooking school demonstration in which several dealers will exhibit their lines of ranges. As knowledge of the department's services becomes more general a need for more individual demonstrations is anticipated, and facilities for expansion will be provided as the work grows.

Southern Counties Gas Company's Office Building at Santa Monica, Calif.

PACIFIC COAST GAS ASSOCIATION

A Page Conducted by Clifford Johnstone, Executive Secretary

A Few Highlights *of the* 32d Annual Convention

THE attendance at the 32nd Annual Convention of the Pacific Coast Gas Association held in Portland, August 17 to 21, exceeded the expectations of all who were charged with the responsibility of arranging the program and entertainment. Portland is situated far north of the center of gravity of the Association membership and it was naturally expected that the Convention attendance would be very materially less than at previous conventions of the Association. But this was not the case as shown by the following detail of the attendance by companies, leading to a total registration of 287 which compares most favorably with the registrated attendance at Santa Barbara in 1924 of 326 and Del Monte in 1923 of 239.

Detail of Registered Attendance

Gas Companies: Portland Gas and Coke Company (41), Pacific Gas and Electric Company (23), Pacific Power and Light Company (9), Southern California Gas Company (9), Tacoma Gas and Fuel Company (7), Los Angeles Gas and Electric Corporation (7), Southern Counties Gas Company (5), Puget Sound Power and Light Company (4), San Diego Consolidated Gas & Electric Company (4), Mountain States Power Company (3), Southern Oregon Gas Company (2), British Columbia Electric Railway Company (2), Midway Gas Company (2), Public Service Company of Colorado (2), Western States Gas and Electric Company (2), Coast Counties Gas and Electric Company (2), North Pacific Service Company (2), United Gas Improvement Company (1), Honolulu Gas Company (1), Madera Gas Company (1), El Paso Gas Company (1), Coast Valleys Gas and Electric Company (1), Spokane Gas and Fuel Company (1), Portland Electric Power Company (1), Truckee River Power Company (1), Panama-Colon Gas Company (1), Tuscon Gas, Electric Light and Power Company (1), Riverbend Gas and Water Company (1), H. M. Byllesby Company (1).—Total 138.

Equipment Manufacturers (32), Gas Appliance Manufacturers (21), Public Service Commissions (4), Miscellaneous (6), Ladies (86).—Total Registration at Convention 287.

Among the firms sending more than one representative are the following: Northwest Gas and Electric Equipment Company (3), Pacific Meter Works (3), Paraffine Companies (2), Sprague Meter Company (2), Pacific Coast Coal Company (2), The Mueller Company (2), Beacon Light Company (2), Welsbach Company (2), Geo. M. Clark Company, Division (2), Lattimer-Stevens Company (2),

One representative was present from each of the following companies: Celite Products Company, Johns-Manville, Inc., E. A. Cry Company, F. G. Arrowsmith Company, Pittsburg Water Heater Company, Jas. Graham Manufacturing Company, Neilan Valve and Supply Company, C. B. Babcock Company, Eckhard Appliance Company, A. F. Erickson Company, Nordstrom Valve Company, Roy Engineering Company, General Sales Corporation, Pittsburg Meter Company, Hoyt Heater Company, Grinnell Company, Eclipse Plant and Manufacturing Company, Ingersoll-Rand Company, Hoffman Heater Company, Taylor Instrument Company, F. S. Lang Manufacturing Company, U. S. Cast Iron Pipe and Foundry Company, Stockton Brick Company, Bryant Heater and Manufacturing Company, Payne Furnace and Supply Company, C. F. Braun Company, Hess Furnace Company, Bartlett Hayward Company, Steere Engineering Company, Reliance Manufacturing Company and Westcott & Greis.

Sectional Meeting of P.C.G.A. San Francisco, Nov. 19

THE first sectional meeting of the Pacific Coast Gas Association will be held in San Francisco on November 19 and 20, with the Stanford-California football game on the 21st as an added inducement for a big attendance. Tacoma or Spokane will be named for another sectional gathering in the course of the year, and a third meeting is to be held somewhere in the Southwest at a place not yet selected. The meetings will all occupy two days to give opportunity for presenting a number of papers and reports, thus relieving congestion at convention time.

The excellence of the entertainment furnished by the Portland companies under the leadership of Geo. L. Myers chairman of the Convention Committee, and the general good time had by all delegates, should not be permitted to overshadow the work done by Association members during the past year and crystallized into accomplishment at the Convention. This program of accomplishment can be briefly summarized as follows:

Affiliation with the A. G. A.

While the Pacific Coast Gas Association has been affiliated with the American Gas Association since 1919, it is the desire of both associations to strengthen this affiliation in a way that will permit the closer co-operation between committees with the consequent unification of effort on important problems and prevention of duplication in committee investigations. This problem has not been entirely solved, the position taken by the Pacific Coast association being that in order for this association to adequately care for local problems it must retain its independence of action and receive sufficient financial support to maintain its organization. The Pacific Coast companies also should not be required to finance the national association to the same extent as do Eastern companies whose proximity to the national headquarters enables them to get along without a strong local organization.

The American Gas Association officials agree with these conditions, and negotiations are now concerned with the details as to what extent Pacific Coast companies should aid in the financing of the national association. At the Portland meeting, the Pacific Coast Gas Association expressed its desire to proceed with this effort to consolidate the associational work of the industry.

Mutual Gas Regulation Code

The Convention indorsed the work done by the ordinance committee under the leadership of C. R. Miller and authorized the officers of the Association to proceed with the effort to provide Pacific Coast municipalities with a code of uniform and reasonable regulations for the installation of gas pipes and gas appliances. The matter will be left open for ninety days for the submission of suggestions concerning the provisions of the code from gas appliance manufacturers. These suggestions will be

given careful consideration by both the committee and the board of directors, after which the code will be made available to gas company members. Whether or not the code is submitted to municipalities will be optional with the gas companies operating in these municipalities and in all cases it will be pointed out that amendments may be necessary to make the code adaptable to local conditions.

Gas Appliance Certification

The Code of Municipal Gas Regulations contains a clause providing that before a gas appliance can be sold it must have the approval of some constituted authority. This constituted authority will of course be the gas appliance testing laboratory of the American Gas Association. This laboratory will be situated in Cleveland, Ohio, and its personnel and organization is now practically complete—it has, in fact, started upon its investigation of gas tubing and gas ranges. It will be some time, however, before the laboratory will be able to complete its specifications for gas heaters and be in a position to test the many diverse types of heaters in use on the Pacific Coast. The Convention agreed that the situation on the Pacific Coast warranted the Pacific Coast Gas Association in making some effort to protect the public from those appliances which are obviously unsafe. The Pacific Coast Gas Association will undertake this responsibility only upon specific request and only until such time as the American Gas Association laboratory is ready to function. The procedure by which the Pacific Coast association can fulfill this temporary obligation was left in the hands of the officers and board of directors.

Home Service Manual

The Convention authorized the officers of the Association to proceed with the completion and printing of the Home Service Manual, the coast of printing to be covered by the sale of copies. Sixty days are allowed for the submission of ideas by appliance manufacturers, after which time the manual will be finally passed upon by the board of directors and ordered printed. Preliminary bids indicate that a servicable, pocket-size, cloth bound book can be gotten out to sell for $1.00 or less, depending upon the demand for copies.

Owing to the fact that as it is now arranged, the subject matter of the manual is more or less interrelated throughout, it is not deemed advisable to bind it in separate sections, that is, to make separate volumes of the sections on gas ranges, water heaters, furnaces, etc. An effort will be made, however, to make these sections as independent as possible

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The Gas Industry *Is* Operating *in a* Revolutionary Era

By Geo. Wehrle

Superintendent, Gas Department, Public Service Company of Colorado

THE Gas Industry has already entered into an era which will be chiefly revolutionary. It will be evolutionary, of course, but only to the extent that our practices in the past have been fundamentally correct and economically sound. We must prepare ourselves to break away from many of our past practices. We have already seen new ideas come into our business that only a few years back would have appalled us. There are a lot more to come and the gas man of today will be called upon to put them across. We have heard a lot about super-power; we are in the era of super-gas, only some of us do not realize it as yet.

What are the important problems facing the gas industry today? I will enumerate a few that to my mind are most important, namely: the displacement of solid fuels, the formation of proper rate structures, the abolishment of regulatory restrictions and the institution of more economic methods of gas production. The first problem is entirely dependent upon the other three. It is the objective to which we should strive. All of the problems are intimately tied to each other. All must be solved.

The House-Heating Load

House heating has come to us in the manufactured gas industry in recent years. Much as we may try to side-step it, this business has come to stay. It is by far the largest source of potential revenue we have. It appears to some of us today as a wrecker of our business, but that is because we haven't the right perspective as yet. With a properly designed rate and a removal of restrictions as to heating value so that real economics can be effected in the production and utilization of gas, the househeating business looks entirely different. The character of this load need not frighten us, for it is only a bugaboo when the other factors are taken care of. Some of the Pacific Coast cities have proven this.

We cannot hope to displace solid fuel until we can sell gas at a fairly competitive rate. This does not mean that we must compete in the actual price per B.t.u displaced. We only need to come reasonably close. There are many other factors in our favor for which the customer will be willing to pay. We must be allowed to produce and sell B.t.u's to the customer at the lowest price possible and in competition with other fuels available in each particular locality. In order to do this we must be permitted to produce a gas that can be made from materials of any character that are available in any locality and from which gas can be made most economically and supplied to the customer satisfactorily from a point of efficiency and economy. When we can produce a gas that can be sold with entire satisfaction to both the gas company and the customer there remains no reason why there should be any restrictions as to the number of heat units delivered in a cubic foot of gas. We are fortunate in the fact that considerable progress has been made in this direction. We will not find the regulatory bodies arbitrary when evidence is properly presented. The biggest job is in selling the idea to ourselves.

An Equitable Rate

As to rates, the universal application of a three part rate, where the expenses are properly allocated, will enable us to supply loads of any character at a profit. Our business is identically the same as that of any other seller of a commodity and our customers should expect to pay for gas service to the extent that they are benefited. The benefit of convenience is overlooked by about two-thirds of our present customers to the detriment of the other third. We are entitled to a fair and equitable rate and until such rates are established in each locality the progress of the gas industry will be held back.

Making Future Gas

It is doubtful if the most economic method of manufacture has as yet been discovered, but that need not worry us for it will come in due time if we prepare the way. The plant of the future will be capable of producing a satisfactory gas from any material available in its particular locality. In most cases this material will be coal, but in some it may for a number of years be oil. Processes must be developed for utilizing coals that have heretofore been considered unfit for gas making purposes. The gas of the future will undoubtedly be the result of the complete gasification of coal and its heating value will be relatively low as compared with our present standards.

Probably this article has injected no

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EDITORIAL

A Word of Thanks

WESTERN GAS feels under special obligation to the officers and members of the Pacific Coast Gas Association for their generous resolution endorsing this publication at the Portland meeting as the official journal of the P. C. G. A. Hereafter Association bulletins will appear in the pages of this journal. *Western Gas* will endeavor to merit the confidence of the gas industry as shown in this recognition.

The meeting was a marked success from the standpoint of benefits derived in the getting together of leading men of the industry and it gave the northwestern metropolis an opportunity to demonstrate again its leading position as a convention city. It was a great convention.

May This Practice Increase!

SEVERAL instances have come to our attention recently of a growing recognition among dealers in gas appliances that it pays to market good articles at good prices. This is an old truth—as old as the history of merchandising, and it is encouraging to see it at length pervading the gas appliance sales field.

The buyer, after all, can appreciate value in a gas range or heater, if dealers will sell value instead of relying on rock-bottom prices to close orders. The public pays for modernized automobiles, and insists upon up-to-dateness in other commodities, even when up-to-dateness comes at a price; the blame rests solely with the dealer if low prices are the only compelling factors in gas appliance selling.

The scale of gas appliance prices is on the up grade in many points in the West, and sounder retailing business should result. Improved retailing standards will result, if the buying public is made to recognize values, and is not merely left with the impression that dealers are making a bigger margin of profit on sales.

A Growing Industry

THAT gas is a growing industry is emphasized by latest statistical reports. In 1924 this country's production reached 400,000,000,000 cubic feet, much the largest ever recorded. Even in London a steady increase over past years is maintained, notwithstanding reports of a decline, 166,000,000 cubic feet being used one day last year, and the year's consumption being the largest on record. These figures prove not only the popularity and stability of gas for domestic and industrial purposes, but they indicate more than anything else what modern ideas and practices are accomplishing for the industry. For several decades gas has been content to take a back seat, apparently, while new ideas, substitutes and "fads" were being tried out. Now, with the application of some of the new and proved ideas to gas, among which have been intelligent publicity (showing the people what we have and how to use it), the modernizing of appliances, and a better understanding of what "service" means, gas is staging a come-back that is bound to make it of still greater usefulness in our homes and industries.

A Decrease in Complaints

IT is cheering to note from the California Railroad Commission's report that there was a marked falling off during the year ended June 30, 1925, of complaints by consumers of gas and electric utilities, there being less than one complaint for each 1,000 consumers. Some will attribute this to the happy dispositions of California gas and electric customers, due to our glorious climate, while others will give the credit to the beneficent influences of prohibition; but from our point of view it is direct evidence of excellent service, which is constantly growing better and better, and which results from greater care and efficiency in utility management. This happy absence of complaints may also be attributed to the more thorough understanding on the part of consumers of the problems of utility operation, and of the need for the betterment of the service. With this spirit maintained and strengthened, as it no doubt will be, the outlook could hardly be more encouraging.

Business Conditions Are Good

BUSINESS continues good throughout the country. Employment figures for June, 1925, in the United States show an increase over June, 1924, of 4.9 per cent; pay rolls increased 8.9 per cent and per capita earnings 3.8 per cent. Further, the outlook for next year in new building, trade expansion, steadying of European and Oriental conditions, etc., points to an era of better feeling in the business world which should continue for a decade or more.

Aeroplane View of Inglewood Field Compressor Plant, Now Under Construction by the Midway Gas Company

Extensions *of* Midway Gas Company's Lines *to* Involve Expenditure *of* $1,350,000

THREE important additions to the lines of the Midway Gas Company, which will involve the expenditure of approximately $1,350,000.00 was recently announced by A. B. Macbeth, executive vice-president of the Company. The first of these, which has already been completed, is the Inglewood addition to their system. The second is the 21 miles of connecting mains betweer Los Angeles and San Bernardino Counties, which will tie together the entire systems of the Southern California Gas Company and Midway Gas Company. The third and largest of the additions will be a 12-inch line from the Ventura gas and oil fields to Castaic, a distance of 52 miles.

Ventura-Castaic Line Surveyed

Preliminary surveys have already been made for the Ventura-Castaic line and plans have been approved for the erection of the necessary compressor units in the Ventura field. Thirteen 160 horse-power direct-driven compressors will form the nucleus of this compressor station. At the pressures which will be used at first for operating this line, 15,000,000 cubic feet of gas daily will be delivered to the Castaic Terminal into the mains which supply Los Angeles, San Bernardino and Riverside Counties. The mains will be so constructed as to be capable of carrying the pressure of 400 pounds to the square inch, under which pressures the daily delivery can be increased to 30,000,000 cubic feet. The cost of this project will be in the neighborhood of $900,000.00. It is expected that it will be completed before the winter increases the domestic demands for gas.

A record has been made by the Midway Gas Company in building a six unit compressor plant in the Baldwin Hills in what has been designated by the State Mining Bureau as the Inglewood Fields, with the necessary delivery lines, in less than 30 days at a cost of approximately $185,000.00. The gas and oil field, which suddenly sprang into prominence just east of Culver City, assumed such importance that it was necessary, in order to conserve the natural gas which occurred there, to install proper compression facilities and connecting lines to carry the gas to the Southern California Gas Company's mains at Slauson and Western Avenues. Six 160 horsepower compressors were installed with the necessary collecting mains and upwards of two miles of delivery lines were placed in order to make this gas available. Several million cubic feet of gas each day will so be conserved for domestic and industrial uses in and about Los Angeles.

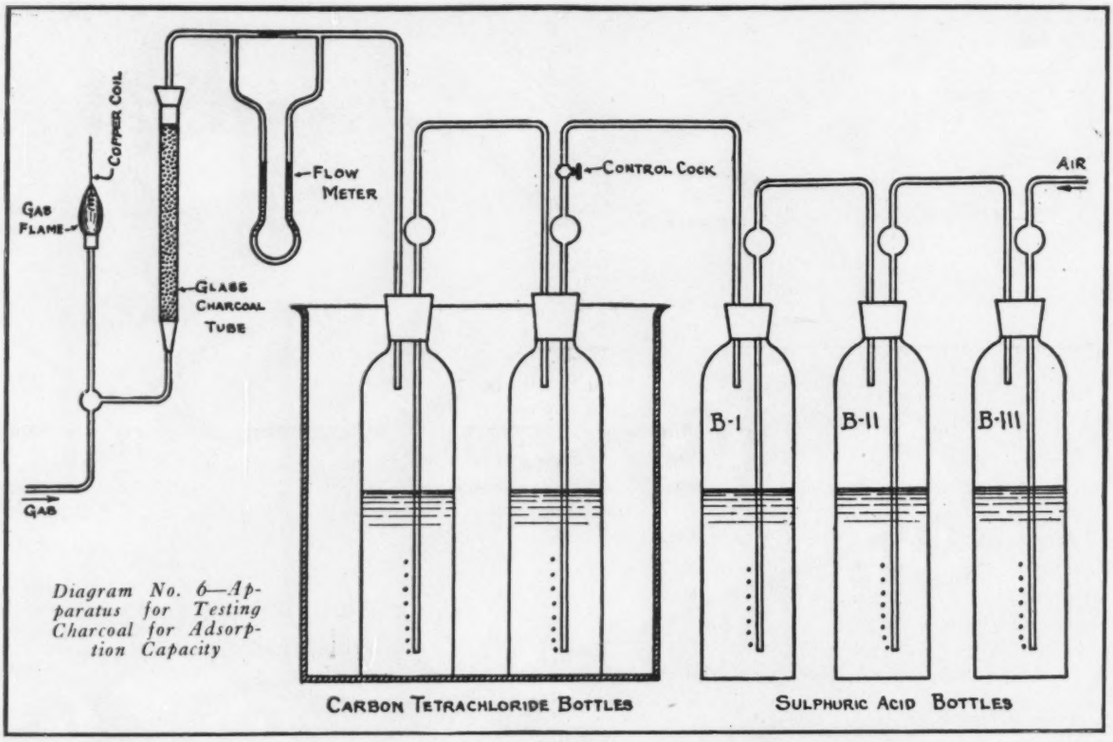

Diagram No. 6—Apparatus for Testing Charcoal for Adsorption Capacity

Testing Natural Gas *for* Gasoline Content

The Concluding Installment of Western Gas' Series on Standard Testing Practice—Charcoal Adsorption Test Outlined for Apparatus, Materials and Procedure

WESTERN GAS is publishing herewith the last of a series of three articles setting forth the three proposed standard methods submitted by the gasoline committee of the Natural Gas Association of America for the determination of the gasoline vapor contained in natural gas. The first article, appearing in the July issue, described the method of testing by compression and cooling; the second article was printed in the August issue and covered the oil absorption method. The method which now remains to be described is the charcoal adsorption method.

A Valuable Contribution

The work which has been done by this committee should be greatly appreciated by every company or individual connected with the manufacture of natural gasoline, either as lessor or producer, and it should be emphasized that it is greatly to the interest of all of these parties to co-operate with and assist this committee, which continues to function, to the end that it may eventually be possible to make these determinations with reasonable equity to all concerned. The importance of this fact is intensified by the great diversity of opinion existing as to the relative merits of the large number of variations of the three general methods in use today. It is obvious that it can never be possible to reduce this determination to the accuracy of assaying practice, because the nature of the material being sought is not subject to absolutely constant definition. Gold can be nothing but gold, whether it comes from Africa or Alaska, but when two chemists report the gasoline content of gas, the results may both be correct and yet not be comparable, due to variation in definition of the gasoline considered.

However, if the work of this committee is successful, it will eventually be possible for two parties to contract for the treatment of wet natural gas and each can know that the calculations are in the same terms. This will eliminate one of the greatest evils of the industry today, by making competition depend on relative ability to perform, rather than a matter of juggling with technicalities.

Methods Should Be Proved

These articles are published with the object of disclosing the established methods to all who have the facilities for supplying the practice necessary to bring out changes which must be made for the final selection of a standard in each case. Obviously those who are conscientiously interested in the advancement of the industry will give their support in proving the advantages and weaknesses of these standard methods.

The compression method of testing was the first to be used, as it approached nearest to the practice of compression plant operation. As the compression plants were gradually replaced by oil absorption plants, the oil absorption method of testing was developed. Both of these methods are, however, rather slow and inconvenient to use. They are rapidly being replaced for all accurate work by the charcoal adsorption method of testing. This method has several advantages over the other methods, chief of which is the convenience and simplicity of the field equipment required for accurate work.

There are almost as many slight variations of procedure as there are laboratories using this method and each operator is vehement in proclaiming his variation the best. However, the adsorptive function of charcoal is so powerful and so positive that it is reasonable to conclude that it is more important to standardize on *one* method than to insist on one *particular* method. Furthermore since this method obtains for the operator an actual sample of the gasoline, which is known to have come from the gas without adulteration, it should be possible eventually to make results very definitely comparable by going one step further and limiting the specifications of

the resultant condensate, particularly its recovery from distillation. When this is done and all tests are made under the same procedure, it will be a simple matter to compare with reasonable accuracy the results obtained by various plants and to predict with reasonable accuracy the results which can be expected from new gas as it is developed.

K. L. REYNOLDS,
Assistant General Manager,
Pacific Gasoline Company.

The following material is taken from the report of the committee on standard testing for gasoline, adopted as a tentative standard for trial by the Natural Gas Association of America.

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Charcoal Adsorption Test Method

Foreword.—The Apparatus and Procedure herein described for the Charcoal Adsorption Test Method were adopted by the Gasoline Committee after much study and experimentation. Necessarily, choice had to be made between various alternate forms of apparatus and steps in procedure. Should experience in general use throughout the industry develop facts which would make any changes or modifications in Apparatus or Procedure advisable, such change will be made by the Committee before this test method is adopted as a Standard by the Natural Gas Association of America.

Criticisms and constructive suggestions covering the Apparatus and Procedure of this Charcoal Adsorption Test Method will be appreciated and given careful consideration and study by the Gasoline Committee.

Correspondence should be addressed to Mr. Wm. B. Way, Secretary, The Natural Gas Association of America, Pittsburgh, Pa.

1. Materials

A. *Charcoal*

The charcoal used for this test shall meet the following specifications:

1. Degree of activity, 40 minute (see Appendix No. 1).

2. Size, 6-14 mesh; not more than 5% material finer than 14 mesh.

3. Moisture content, not more than 4% by weight as determined by the following method:

A one gram sample heated for one hour at 150° Centigrade shall not show a loss of weight of more than four one-hundredths of one gram.

B. *Ice for Condenser*

C. *Glycerine, C. P.*

2. Adsorption Apparatus

Adsorption Tubes for which see Diagrams Nos. 4 and 5.

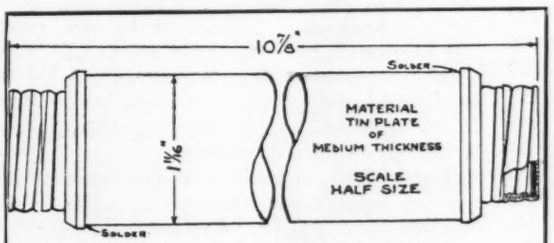


Diagram No. 4—Charcoal Adsorption Tube

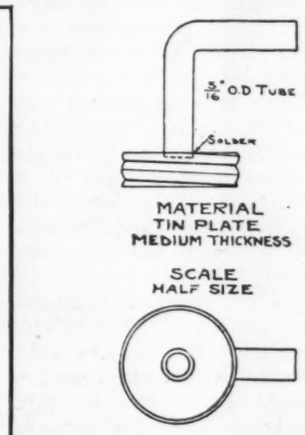


Diagram No. 5—Charcoal Adsorption Tube

3. Distillation Apparatus

(Refer to Diagram No. 3)

A. *Flask*

Standard 1,000 c. c. Engler Distillation flask.

Dimensions—Diameter of bulb (outside), 5", ¼" tolerance. Diameter of column (inside), between ⅞" and 1". Length of column 6¼", ¼" tolerance. Length of vapor side tube, approximately 7". Vapor tube to be connected in middle of column.

B. *Condenser*

A. S. T. M. Standard Gasoline Distillation Condenser, described in Bureau of Mines Technical Paper 323A, p. 48. In addition a small vapor tube should be soldered in condenser tube just above outlet in such a way that un-condensed vapor may be removed without trapping condensate.

C. *Thermometer*

A. S. T. M. low distillation, as described in Bureau of Mines Technical Paper 323A, p. 48. Range 30° F. to 580° F.

D. *Meters*

Dry, Orifice, or Wet, carefully calibrated. See also procedure.

E. *Receiver*

A graduated glass stoppered cylinder shall be used as a condensate receiver. The receiver shall be equipped with a rubber stopper through which outlet tube of condenser extends. The receiver shall be surrounded by an ice bath.

F. *Barometer.* Not shown.

G. *Thermometers for Taking Gas Temperature*

Not shown.

4. Operations of Test

A. *Procedure for Adsorption*

1. Adsorption tube is charged with 150 grams of specified charcoal. Previous to use charcoal shall be heated for one hour at 150° C.

2. All gas measurements are to be made on *inlet* side of charcoal tube. The gas is to be dried by means of Calcium Chloride, before metering, if a dry or orifice meter is used; and on *outlet* of meter if a wet meter is used.

If an orifice meter is used for gas measurement, proper correction shall be made for specific gravity of gas flowing into meter.

All gas volumes are to be corrected to 60° F. and 30" of mercury without correction for saturation.

3. Rate of flow of gas through charcoal varies with the vapor content of the gas.

Rate is defined as the number of cubic feet passing through the charcoal tube per hour.

Several preliminary tests should be made to learn approximate gasoline content of the gas to be tested, and with this information available, the proper rate should be employed in making a determination. The following rates should be used:

1. When the vapor content of the gas is under 100 gals. per million, 20 cu. ft. of gas per hour;

2. When vapor content is between 100 and 300 gals. per million, 15 cu. ft. per hour;

3. When vapor content is between 300 and 500 gals. per million, 10 cu. ft. per hour;

4. When the vapor content is between 500 and 1,000 gals per million, 5 cu. ft. per hour; and,

5. When the vapor content is over 1,000 gals. per million, 2 cu. ft. per hour.

Note.—The volume of gas passed must be such that there will be a recovery of approximately 25 cubic centimeters of fluid on distillation.

B. *Procedure for Distillation*

The apparatus for distillation is assembled in accordance with Diagram No. 3. The distilling operation is conducted in the following manner:

1. 150 c.c. of pure glycerine are poured into distillation flask. Use a funnel for the purpose in order to prevent glycerine adhering to the neck of the flask;

2. Transfer the charcoal used in the test from the adsorbing tube to the flask;

3. A cork carrying the thermometer

(Continued on Page 30)

A Success Due *to* Quality Merchandise

Ott Hardware Company, Santa Barbara, Celebrates Fiftieth Year of Operation. Manager Attributes Success to Selling Good Articles and Giving Satisfaction to Buyers

BACK in 1875 when "Santa Barbara" was a synonym for colorful, Spanish southern California, and professional tourists were just beginning to acquire the wintering-in-Santa Barbara habit, a little hardware store acquired space in an uptown block on State Street and opened its doors to the public.

Its "uptown" location has become "central," by a gradual process of municipal growth, its front has undergone several changes—one very recently, when the earthquake catastrophe left its mark up and down the length of Santa Barbara's business district—but Ott Hardware Company's doors are still open to the public, and a host of friends bear witness to the soundness of the business policy adhered to by this progressive firm, in its fifty years of service.

A Golden Anniversary

"Fifty years of service" is a phrase which occurs frequently in Ott Hardware Company's advertising copy this year, and a representative of *Western Gas* was sufficiently impressed by it to seek an interview with T. M. George, who for many years—since 1902, in fact—has been actively in charge of the company's management. Having lived in Santa Barbara for some years *Western Gas'* representative knew something of the success and growth that have attended these fifty years of merchandising activity; how, for instance, the company's 28-foot by 50-foot floor space was extended to a 150-foot depth in 1902, and how, three years ago, the floor area was exactly doubled by taking over an adjoining store space. Learning from Mr. George that plans are now maturing to increase the present store space by approximately one-half, the thought came forcibly to the writer's mind that some dominant, result-producing policy must characterize this firm's selling and management — and that the readers of *Western Gas* would be glad to hear of it.

Mr. George's opening statement brought disillusionment in one respect. The steady growth and expansion of this Santa Barbara hardware firm is not to be attributed to any novel advertising or sales promotion device, though the local papers can vouch for the fact that Ott Hardware Company believes strongly in advertising. Neither can credit for that company's success be claimed for any policy of "sales," "specials," "markdowns," or the carrying of low-priced merchandise to secure "volume" or rapid turnover.

Not a "Cheap" Store

"We don't claim to be a 'cheap store,'" is the manager's terse way of putting it. "If our success is due to any one thing it is due to the fact that for fifty years we have been building a reputation for selling quality and giving satisfaction." This expression has a familiar ring; it represents, in truth, the aim of most successful retailers, regardless of what commodity they handle. We may occasionally hear of a dealer who consistently handles cheap goods at a profit, but he is the remarkable exception. The insistence upon quality has been so deservedly emphasized by the Ott Hardware Company that it may be termed the outstanding feature of the firm's marketing policy. It ranks as a fetish, by which management and salesforce alike order their conduct.

The quality angle as is affects Ott's gas appliance business is especially significant. Gas was introduced into Santa Barbara homes about fifteen years ago, and soon afterwards gas appliances were handled in an experimental way by Ott's. In all of the seasons which have intervened between the opening of this department and the present time the store has never held a "special" on gas appliances, though an attractive range and heater business shows up on the monthly records. "Our idea is that sales inducements based on price alone only cheapen the goods and the store," says Mr. George.

The ranges sold by Ott Hardware Company are not cheap articles. They cover a price scale of $75 to $350, which speaks for itself. In the entire stock of ranges will be found two or three "cheap" numbers. They are not sold, but stand out as effective contrasts in a display of quality articles. Stressing quality in the gas appliance department brings results. To quote Mr. George again: "Our gas appliance business, from an investment standpoint, is as attractive a feature as we carry; stoves of the class we handle return a good margin of profit, and the same is true of other 'quality' gas appliances." One point emphasized was the fact that the durability of a well-constructed range or heater makes lasting friends of buyers.

A Household Department

Three years ago a special household department was installed and equipped with a complete stock of gas appliances and kitchen outfittings such as crockery, agate and enamelware and cooking utensils of all types. The department is housed in one entire side of the store, has a 22-foot width and will have a depth of 200 feet in a short time when some contemplated additions are made. The splendid facilities for effective display in a space of these dimensions may be imagined.

A display window runs the full width of the household department, and is occasioning considerable comment from the fact that it opens directly into the store space, having no back wall or half partition. The only break between the window display and the store space is a draped railing which projects about a foot above the level of the window floor when the latter is raised above the inside floor level. This unusual window is an innovation introduced by Mr. George and presents so many advantageous features that the originator, for one, favors knocking the back wall out of the window fronting the other half of the store. The "backless" window assures good lighting and in addition enables the passerby to view the entire stretch of the inside store arrangement—which, by the way, is an attractive one. A sectional floor to the window makes it possible to place refrigerator and range displays on a level with the inside floor. General displays are on a level about three feet higher than the inside floor.

Additions soon to be made to the household department will allot a special room to gas ranges, where several sizes of the same line may be displayed together. This will permit of easy comparison and will give even greater opportunity to the salesforce to play up quality in appliances. It should be noted that the household department is under the management of a special salesman and saleswoman.

Earthquake "Freaks" at Ott's

The recent earthquake shocks, which played so much havoc in Santa Barbara's business section, left some "freakish" impressions on both interior and exterior of Ott's. The brick fronting of the building was torn loose clear to the I-beam—yet the plate glass windows went unshattered; 250 kegs of nails were thrown over and scattered promiscuously — but not an article on the shelves was disturbed. A 650 pound refrigerator was overturned onto a wicker basket—but the basket went un-

damaged. (For the sake of credence it might be said that the refrigerator also was unhurt—the writer was also told of some eggs that rolled uncracked to the pavement while their container basket suffered demolition, but a reader's patience should never be stretched to the breaking point.)

A point or two regarding Ott's service policy may be offered in conclusion. No stove sold from Ott's goes into use in the buyer's home without a test being made of its operation by a special stove man. This employee usually sets the stove up in the first place, but the test is invariably made. As a result, says Mr. George, there has been no unpleasantness due to inefficient operation of appliances sold from their floor.

An Example of Service

"We can't afford to have a stove in use that isn't working for us, even if we didn't sell the stove." This statement was so strong that it required enlargement, and the following example was offered: A woman bought a good range, of the same type as that sold at Ott's, of another firm. She bought it at a sales price, after first pricing it at Ott's. By some odd chance the stove proved to have a warped frame, which fact Ott's trouble man soon discovered when the purchaser called in with the report that the stove wouldn't function properly, and "could you do anything about it for me?" Instead of taking umbrage at the buyer's patronage of another firm Ott's merited her confidence by taking the stove in and shipping it back to the factory, free of charge to the buyer. Incidentally it may be offered that the buyer has sold more than one stove for Ott's to her neighbors since experiencing the accommodation. The factory sent a posthaste letter of thanks, covering all charges, so that the service cost Ott Hardware Company exactly nothing and gained the favor alike of user and factory. Yet it is fairly safe to hazard that the example could not be duplicated by every dealer in gas appliances.

"Fifty years of service," to one who knows something of the policy which has dominated these years of merchandising activity, is not an empty slogan. Proof of the value of a policy lies in its results, and measured by this standard Ott Hardware Company may fairly acclaim to "the trade" a truth we have long recognized: Selling quality goods and holding the customer's satisfaction to be the "prime mover" of successful retailing pays real dividends. And these dividends are not of "coin of the realm" alone. There is a certain invaluable sense of a work well done that accompanies a deserved reputation for dependability and service to a firm's buyer-friends.

Appliance Men Gather *in* Fall Meeting *at* San Francisco

By H. Elliott Taylor

THE fall convention of the Gas Appliance Society, held every year in conjunction with Furniture Week in San Francisco, drew a representative attendance from all parts of the state of California to its two sessions of Thursday, August 13th.

Choose 1926 Officers

As a result of the recommendation of the Executive Board, the following named officers will pilot the organization for the ensuing year. President L. J. Breuner, Oakland; vice president, C. B. Babcock, San Francisco; secretary and treasurer, F. U. Naylor, San Francisco. The Advisory Board will be composed of A. L. Kerr, George P. Egleston, L. C. CinqMars and R. Thompson, for the Manufacturers and Jobbers Group; H. M. Crawford, M. F. Wales, Henry Masser and A. Y. Holloway, representing the Gas Company Group; members representing the Units Group will be selected by the various local branches of the organization in the first regular meetings.

Among the reports delivered in the afternoon session of the State Advisory Board were the following: F. U. Naylor, for the executive committee; W. H. Mixter, financial report; and President George P. Egleston, on the nominations for officers of the Society.

Campaigns Discussed

Reports from the various units represented discussed the results of the spring gas appliance display, the oven canning campaign now in progress, and the contemplated fall heating campaign.

The report from Fresno, which was the most comprehensive summary submitted during the entire afternoon, was delivered by A. R. Albouze. The activities in the Penninsula were outlined by P. R. Rorke, Burlingame. H. G. Wulburn reported for Marin County; O. H. Byers for Vallejo; M. F. Wales for the Coast Counties territory, W. E. Fletcher for East Bay cities, and L. H. McCoy and Paul Harlan for San Francisco. The Gas Appliance Association of Southern California, the newly organized body, was represented by its secretary, George Finney, and some of the details of this association's organization were warmly commended by president George P. Egleston.

Unethical Advertising

Under the head of new business it was reported by Mr. Naylor that the co-operative advertising of the San Francisco Coal Dealers had aroused no slight opposition on the part of the Society, due to untrue and unethical statements appearing in the copy. This matter has been taken up with the Coal Dealers and they have conceded that it will be necessary for them to tone down some of their extravagant statements.

Group heads were advised to be constantly on the alert for any new ordinances in their respective territories that might be designed to have a bearing on installations of gas appliances.

The Board also voted unanimously in favor of adopting a uniform letterhead, as well as a membership card or sign of some kind to be displayed in every member's place of business. These will be selected at a later date from a number of designs that are now in preparation.

In the evening meeting, which was also presided over by President Egleston, the work of the afternoon session of the Advisory Board was summarized for the enlightenment of the general membership of the Society who were present.

A Speakers Bureau

One of the most progressive steps to be taken by the Board was the decision to found a speakers bureau, where members of the Society will be drilled so that they may better go before the different Units throughout the state and deliver worthwhile messages on the various ramifications of the great business of selling gas appliances. The bureau will also provide for the expenses of such speakers as may be required to travel.

The President commented on the gratifying growth of the organization, which started in 1921 around a neucleus of four or five men, and in four years has grown until it now numbers 1700 members.

C. B. Babcock, who has taken charge of the Gas Appliance section of the California Industries Exposition, reported that already a number of manufacturers and dealers are signed up to maintain displays in the big annual show, which is held in the Civic Auditorium, San Francisco.

A. L. Crane Speaks

A. L. Crane, well known to the gas fraternity of the entire state, was the first of three speakers who were included in the evening's program. Mr. Crane, who is a deadly enemy of price cutting in any form, and under any guise, dis-

cussed what he referred to as "the buyer's mind."

"A price appeal is a handicap that you impose on yourself and your business," said the speaker. "Price always bears down on quality merchandising." By the means of slides thrown upon a screen he proceeded to analyze the real reactions that go on in the buyer's mind when she is determining on a purchase: the advertisement or request that first arouse her interest, the various reasons she conjures up to sell herself on the advisability of doing what she wants to do in the matter, and the closing decision which results in either a purchase or a rejection of the idea. Nowhere in the entire chain is the price appeal a strong factor, Mr. Crane points out.

Commenting on the general conditions in the appliance business, he urged that the dealers in particular should consider themselves under a moral obligation to make the best of the opportunity where the gas campanies withdraw from the appliance business, thus turning it over automatically to the retailers. He also told of an interesting plan that is being developed for next year's gas appliance display, when it is intended to have a high school girl take charge of the advertising of each store —a simple and very ingenius way to assist the coming generation in selling itself on gas appliances, it would appear.

Address By A. D. Smith

A. D. Smith, of Barker Bros., Los Angeles, and president of the State Retail Furniture Dealers Association followed, with a discourse on Tendencies in Modern Merchandising. Enlarging on this theme, the speaker pointed out that many merchants are still finding it hard to realize that the war is over, and that gone with it are the good old days of business on a rising market, the golden fiesta of buying, when only the exceptional man failed to make money.

The elimination of the smaller merchant, who is unable to offer either the service or the prices of the big stores, is one of the tendencies of the time, as Mr. Smith sees it. He also commented on the rapid growth of the mail order stores, pointing out at the same time the utter futility of any retailer trying to compete on price alone. The only answer seen to the mail order competition is for the smaller merchants to base their appeal on the quality of their merchandise and the personal service that they are able to render their customers.

"Be Yourself"

Mervyn P. Dowd, attorney at law, was the final speaker, selecting for his subject "Be Yourself." Mr. Dowd is apparently a student of applied psychology and dietetics as well as an attorney, and he gave some valuable advice on keeping fit through the simple expedient of keeping the alimentary tract well packed with green vegetables and the lungs full of fresh air. Inasmuch as many of the supply men had put in a heavy week consuming convention luncheons, and sitting in smoke-laden rooms, the lecture was decidedly timely, if not, indeed, inspired.

Mr. Dowd also pointed out that it is impossible to achieve one hundred per cent efficiency with a less than one-half of one per cent (by volume) physical equipment.

Installation of President

The installation of the new president, Mr. Breuner, was the signal for prolonged cheering on the part of the Oakland delegation, who seemed not at all unwilling to bask in the reflected glory of a favorite son elevated to the Society's highest office. After a few brief words of thanks to the organization, the newly-elected president declared the meeting adjourned.

Move *is on to* Exterminate Bogus Stock Peddlers

PEDDLERS of worthless stock have long been a thorn in the side of public utility companies whose stable stocks and bonds are coveted in exchange for questionable paper. The unwary investor is often inveigled into making such exchanges of utility investments for worthless securities, and a move is under way in California to stop this type of swindling. State Commissioner of Corporations Edward M. Daugherty, enlisting the co-operation of public utility companies in this regard, writes as follows to the Pacific Gas and Electric Company:

"It is a common trick of peddlers of uncertain or worthless stock to try to trade their offerings for solid securities. Thus it is that stocks and bonds of established public utility companies are now and then exchanged by the unwary for bits of paper whose value could not be accurately ascertained unless they were sold by the pound. To stop this form of swindling State Commissioner of Corporations Edwin M. Daugherty has appealed to various big corporations to help him by urging their stockholders to investigate before they invest. His letter to the Pacific Gas and Electric Company reads in part:

"The records of this department show that some of the stockholders of your company have been systematically circularized by questionable brokers and promoters to induce them to trade their holdings in your company for a class of security of little or no value. In some instances they have actually been victimized.

"The State Corporation Department is seeking to protect the investing public. It is impossible at this time for us to reach your stockholders individually. Undoubtedly from time to time you communicate with your stockholders. This department would appreciate your company urging its stockholders to adopt the rule: 'investigate before you invest.'"

B. G. WILLIAMS BACK FROM TOUR THROUGH ALASKA

B. G. Williams, Engineer of the Southern California Gas Company, and Mrs. Williams have just returned from a tour through the interior of Alaska.

Gas Claims Recognition *as* Oldest *of* Utilities

GAS is the oldest of the family of American public utilities. A few of the wise men of the powdered-wig days caught a glimpse of the future as they gazed into a gas flame and gave a public demonstration of its lighting qualities in Philadelphia in 1796, the year before George Washington retired from the Presidency.

In 1803 the first large gas lamp gleamed from a 40-foot pole in Richmond, Virginia. In 1812, when most people were thinking of war, David Melville of Newport, Rhode Island, lighted his home and his street with gas that he manufactured himself. Soon afterward the same Melville lighted a factory with gas and made such a success of it that he was able to induce the United States Government to use gas in the Beaver Tail lighthouse at Jamestown, Rhode Island.

In 1816, just 109 years ago, the city of Baltimore took the next step forward. There the first American gas company was formed to light stores, homes and streets. Thirteen years later Boston installed the first system of gas street lamps. That was in 1829. From that time the gas industry grew slowly but steadily. Among the gas companies that helped to build up the industry were the New Haven Gas Light Company, formed in 1847, and the Providence Gas Company, formed in 1848, both of which had a continuous existence to this day and both of which boast that their gas supply has never failed.

Cooking by gas, a use that gave the industry a new hold on public favor, did not come until 1876, when a public demonstration of its value was given at the great Centennial Exhibition, the first of America's notable world's fairs.

Heating by gas was gradually taken up by manufacturers as the new fuel proved its superiority, so when electricity came along and invaded the lighting field gas had other avenues of growth. Today manufactured gas is put to 5000 different and distinct uses, and its production and distribution is one of the nation's greatest public utility services.

DETAILS OF GAS MAKING ARE POPULARIZED IN NEWS STORY

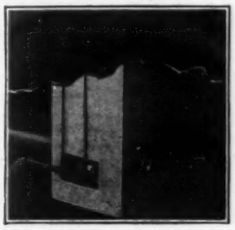
The San Diego Union for August 23 contained a colorful article entitled "San Diego's 'Active Volcano' Does no Harm—It's just Blow-off of Gas." Details of the process of making gas from fuel oil are introduced into the story, which has its origin in the blow-off flare visible at night for miles around San Diego.

Among other things the article discusses some of the problems housewives experience with gas, and methods being adopted by gas companies to obviate them. The article is a good example of a popular and clear treatment of technical matter, presented in a form calculated to interest the gas consumer and bring a wider understanding of company problems.

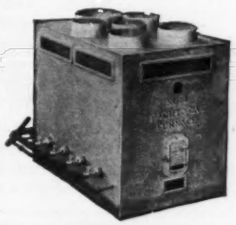
OIL LEASE GRANTED ON 2,560 ACRES IN WYOMING

An oil lease on 2,560 acres of land in Sweetwater County, Wyoming, has been granted by the Department of the Interior to William E. Mullen of Evanston, Wyoming, on a royalty basis. A daily gas flow estimated at 4,760,000 cu. ft. is being produced by a well recently drilled to a depth of 1,778 feet.

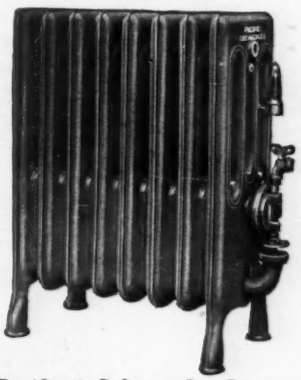
Pacific
Pressed Metal
and Cast Iron
Radiators



Pacific
Floor Furnaces



Basement
Gas Furnaces



Pacific 4 Column Gas-Steam
Radiators

Get *in On* Every Job . . . .

With the COMPLETE Pacific Line You Figure and Handle Installations More Profitably

YOU can make more money by concentrating on the complete Pacific line of gas heating appliances. There is a Pacific unit for every possible heating need—homes, schools, churches, stores, apartment buildings, factories and office buildings. Each unit fits a particular purpose and there is no duplication.

By concentrating on the Pacific line, you can carry a smaller stock and therefore use less capital. You will have no slow-moving merchandise, because Pacific is well-known, well-advertised, unequalled in quality and efficiency and backed by an aggressive organization. You can figure more closely on jobs, because you will never have to specify a unit which is not best-suited for the job. All Pacific appliances have been improved through 13 years of use. They are STANDARD merchandise. There is no danger of your stock becoming obsolete.

Pacific Heating Engineers are available to any dealer who needs suggestions or help on any particular job.

Write for Agency Proposition

Pacific Gas Radiator

Gas Heating **Company** *Headquarters*

General Offices—1740 West Washington St., Phone BEacon 2190
Downtown Display—616 W. 8th St. Factory—7541 Roseberry St., Los Angeles, Calif.
Representatives throughout the West

Security Issues Total Big Sums

PUBLIC utilities in California found it necessary during the fiscal year ending June 30, 1925 in order to meet the increased demands for service, due to the growth of the state, and to carry on the extensive construction programs that have been started in previous years, to issue large amounts of securities to finance such construction work.

Applications involving the issue of $197,412,807.29 of securities were filed with the Commission during the fiscal year, of which the Commission authorized the issue of $175,795,119.29, denied applications aggregating $19,900,400.00, and dismissed applications amounting to $1,717,288.00.

Less than 1924.

The amount of securities authorized was considerably less than during the fiscal year ending June 30, 1924, when the enormous total of $243,869,746.29 was authorized. It was considerably larger, however, than the amount authorized during the fiscal year ending June 30, 1923, when $144,860,030.91 was authorized. The average for the three years has been $188,174,965.49, of which about 75 per cent was authorized for new construction work.

The grand total of all securities passed upon by the Commission since it assumed jurisdiction over such issues on March 23, 1912, to June 30, 1925, is $2,109,176,414.48. During that period the Commission authorized the issue of $1,922,944,760.66 of such securities, denied applications for $101,563,620.04, and dismissed $84,668,033.78.

Classification of Securities

The securities authorized by the commission during the last fiscal year, segregated to the various classes of utilities, are shown in the following table as compared with the fiscal year ending June 30, 1924, and June 30, 1923:

	Year ending June 30, 1923	Year ending June 30, 1924	Year ending June 30, 1925
Steam R. R.	$13,959,100.00	$5,500,800.00	$4,023,150.00
Electric Railway	475,000.00	42,059,092.88	3,515,496.40
Gas & Elec. Co.	95,935,157.91	124,008,650.00	116,684,856.00
Water Co's.	24,494,163.00	12,318,910.41	7,339,346.39
Tel. & Tel. Co's.	935,495.00	55,952,250.00	41,982,306.50
Warehousemen	5,714,010.00	279,000.00	668,700.00
Carriers by water	1,144,000.00	1,977,900.00	193,000.00
Automotive carriers	2,203,105.00	1,773,143.00	1,388,264.00
TOTAL	$144,860,030.91	$243,869,746.29	$175,795,119.29

The classes of securities authorized during the last fiscal year were as follows: Stocks, $101,866,563.69; bonds, $70,833,600.00; notes, $2,894,955.60; certificates, $200,000.00.

Purposes of Issue

The purposes for which these securities were authorized were as follows: Additions and betterments, $148,027,069.89; refunding $11,516,756.00; collateral, $14,529,000.00; reorganization, $1,722,293.40.

There were pending before the Commission on June 30, 1925, applications to issue $39,280,350.00 of securities.

Future Gas Achievements Predicted

IN an address before the Metropolitan New York Section, National Electric Light Association, Geo. B. Cortelyou, president of the Consolidated Gas Company of New York, had this to say of the gas industry: "We make no apology for the business we are in. We are proud of it, proud of its history, proud of its marvelous growth, proud of its contribution to our modern civilization. We believe that the future holds for it an even greater store of achievement than the past, and that under a regime of private, as distinguished from government, ownership and individual initiative, coupled with enlightened public regulation, it will fulfill all demands upon it with a wide margin to spare. And what we have called private ownership is, in fact, public ownership, because of the wide distribution of utility securities among all classes of our population."

Speaking further along the lines of service Mr. Cortelyou adds:

"Unlike other industries our utilities must accept all business that is offered; they cannot choose their customers, they cannot place any limit upon the demand for their product nor refuse to supply that demand without notice. Having started they cannot stop. They cannot close down for repairs, or on account of hard times, or for any other reason. The fires once lighted never go out. The slogan 'Ready to Serve' must be kept forever true in its literal sense. They must not only be prepared to meet today's needs but must provide a reserve against tomorrow's. They must not be caught unawares by a sudden demand that they cannot meet. They must cultivate the goodwill of their public, first by deserving it through good service and then by telling about it."

SENATE COMMITTEE TO PROBE LAND ADMINISTRATION

The Senate Public Lands Committee has decided to enter upon a sweeping investigation of all matters affecting the administration of the public lands, including oil. Its itinerary calls for hearings at Helena, Montana, August 31st; Missoula, Mont., Sept. 1st; Yakima, Wash., September 3rd; Seattle, Wash., Sept. 4th and 5th; Portland, Ore., Sept. 8th and 9th; Pendleton, Ore., Sept. 10th; Baker, Ore., Sept. 11th, and Boise, Idaho, Sept. 12th and 14th. Plans for inquiry into oil matters were announced by Senator Walsh of Montana, shortly before his departure for Europe. The committee, he said, expects to hold meetings to go into the administration of the Salt Creek oil fields, near Teapot Dome.

U. S. OIL FIELDS HAVE PASSED PEAK, SAYS REPORT

Probability that the oil fields of the United States passed their ultimate peak of production in 1923 and have entered upon their final phase of slow and gradual decline is indicated in a special report to R. M. Catlin, President of the Mining and Metallurgical Society of America. The conclusions of the investigating committee are that consumption is now increasing more rapidly than supply; that higher prices of petroleum and gasoline are inevitable and are advocated as a stimulus to production.

24 LESSON COURSE FOR GAS MEN TO BE GIVEN BY MAIL

A 24 lesson course in gas company operations is to be given by Columbia University by correspondence, the course beginning October 1. Enrollment for the newly established series, given under the direction of Professor Jerome J. Morgan of the Columbia faculty, is now in order, and may be made either through the University or through the American Gas Association

DEATH TAKES H. S. BABB DURING P. C. G. A. CONVENTION

H. S. Babb, industrial engineer for the Portland Gas and Coke Company, was taken suddenly ill with ptomaine poisoning during the P. C. G. A. convention at Portland and died Wednesday night, August 19. A paper was to have been presented at the convention by Mr. Babb. The deceased was only 30 years of age.

NEW APPLICATION OF CHARCOAL ABSORPTION PROCESS

The first commercial installation of a charcoal absorption plant designed to operate on rich natural gas is claimed by the Skelly Oil Company. Successful operation is reported by the company for a small plant treating approximately 1,000,000 cu. ft. of gas a day, the gas showing a gasoline content of two and a half gallons per 1,000 cu. ft.

$20,000.00 FOR RESEARCH

Twenty thousand dollars has been appropriated by the Engineering Department of the State Railroad Commission for experiments to be carried on to determine the possibility of manufacturing commercial gas from low grade coal. There are deposits in Orange, Fresno, Riverside, and Contra Costa Counties, which may be mined if it is found that this coal can be so utilized. This appropriation will aid the activities of the California Gas Research Council.

PASO ROBLES GAS COMPANY ANNOUNCES OFFICERS

According to word received from Paso Robles, Calif., the newly-organized Paso Robles Gas Company announces the following officers, resulting from an election recently held by the stockholders: J. P. Burrows, president; I. J. Boyd, vice-president; L. C. Du Vernoy, secretary; F. J. DeMille, treasurer, and A. A. Thomas, field manager.

BARNETT TAKES A. B. STOVE LINE

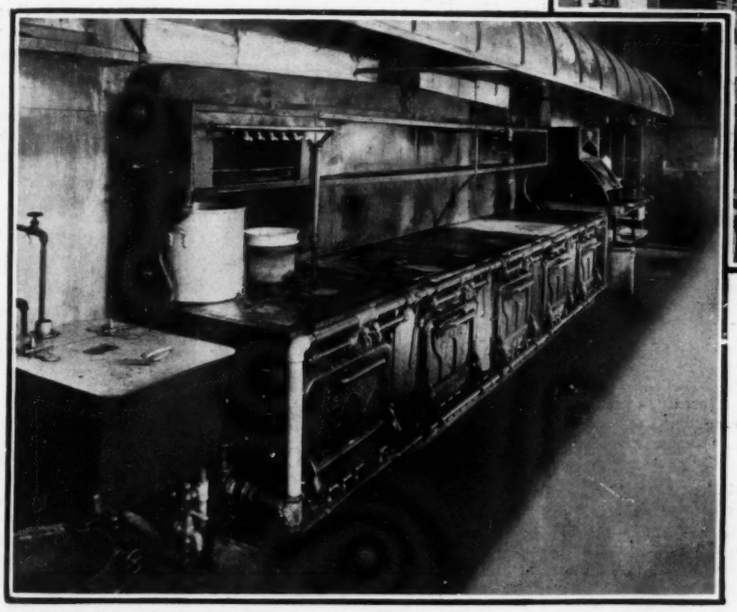
M. S. Barnett, manufacturers' representative with offices in the Furniture Exchange, 180 New Montgomery Street, San Francisco, has recently returned from a trip to Battle Creek, Michigan, where he closed an agreement to represent the A. B. Stove Company in San Francisco and northern California. Mr. Barnett also represents the Malleable Iron Range Company of Beaver Dam, Wisconsin, makers of Monarch and Paramount ranges.

COFFEE ROASTED AT MINIMUM COST BY USE OF GAS

The day of preparing every pound of coffee by hand at considerable expense has passed, and by using gas in large scale roasting processes the cost is only about 6/1000 of a cent a pound, according to a recent estimate received from the American Gas Association. Sixty tons of coffee in an eight-hour day is the roasting capacity of one plant in Brooklyn, N. Y. Gas is found invaluable in this use, due to the even heat and exact timing possible through its combustion.

THE T. G. ARROWSMITH CO.

Women's Athletic Club of San Francisco California



Selects THE SEXTON Patented Hotel Gas Range

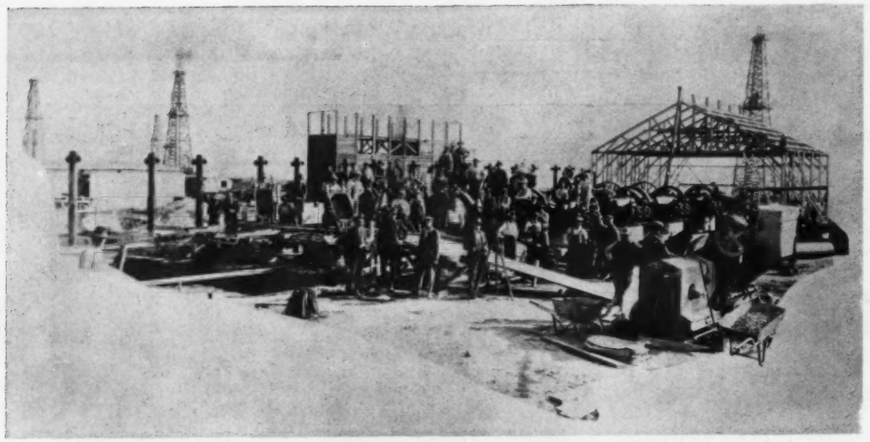
The selection of 5 SEXTON Patented Hot Top Hotel Gas Ranges for the kitchen of this splendidly appointed club is significant recognition of SEXTON superiority.

An important feature of this installation is the SEXTON Patented Gas Control which insures economy of fuel and greater ease of control.

THE S. B. SEXTON STOVE & MFG. CO.

The T. G. Arrowsmith Co., Pacific Coast Representatives

135 New Montgomery Street
San Francisco



Showing Progress of Construction on Long Beach Municipal Gas Plant

Municipal Gas Plant *at* Long Beach

FOLLOWING their recent decision to build a municipal gas plant, the officials of the City of Long Beach entered upon a building program of which speed is an important feature. The plant is to have a capacity of fifteen million cubic feet of gas per day and was scheduled to be entirely completed and ready for operation 45 days after breaking ground. Among other equipment shown in the specifications are ten 160 HP. "Western" Duplex Gas Engines and two 25 HP. "Western" Single Cylinder Gas Engines, to be furnished by the Western Machinery Company of Los Angeles, California.

The photograph reproduced above was taken shortly after work had started on this plant, and shows the large crew of workmen employed on the project. Equipment was being installed as fast as the foundations were ready, and the buildings erected simultaneously.

It is anticipated that this plant will be capable of supplying the industrial and commercial requirements of the city for some time to come and will prove to be a highly profitable investment for the municipality.

Agents *for* Giant Pipe Pushers

THE C. B. Babcock Company, Pacific Coast representatives of leading manufacturers of industrial and domestic gas equipment, and makers of the Babcock Furnace, announce that they have been appointed agents for Giant Pipe Pushers. This machine, which is well known to public utility companies and others who have a considerable amount of trench work to do in laying pipe, utilizes the scientific principles of compound leverage for pushing pipe through the ground. It is claimed that in laying pipe in sizes from ½-inch to 4-inch capacities, the use of Giant Pipe Pushers eliminates more than four-fifths of all trench work, permits the use of a smaller number of men, and hastens the operations of pipe-laying. The machine has also the advantages that it can be used in heavy clay or adobe soil, or in laying pipe across lawns and highways, where trenching is costly and difficult.

"There are more than 20,000 Giant Pipe Pushers in use by gas companies, water companies, and all companies that have any kind of trench work to do," according to a statement by the C. B. Babcock Company. Giant Pipe Pushers are manufactured by the Giant Manufacturing Company of Council Bluffs, Iowa. For emergency orders, the C. B. Babcock Company will carry a stock of Giant Pipe Pushers at the new Babcock factory at 135 Bluxome Street, San Francisco.

Gas Appliances *in* Furniture Week

THE Furniture dealers of the State of California have just completed their five day pilgrimage to San Francisco and those in close touch with the situation are unanimous in declaring that a greater interest was shown this year in stoves and other gas appliances than at any gathering heretofore.

They are beginning to realize, as Al. Crane puts it, that the kitchen is the starting point of the sale. Running nip and tuck with the latest and best in furniture, was the latest and best in kitchen ranges, radiant type heaters and other gas appliances.

More furniture dealers registered at the furniture exchange this time than in any summer furniture week held. It is interesting to note that, although the local furniture exhibit has been in operation only nine years, it shows a per capita representation of dealers in attendance that is five times that of the Eastern shows.

Luncheons were held daily, and at each noonday meeting some speaker of importance was scheduled. Senator Samuel Shortridge delivered the address on Monday; Irving L. Brown of the Better Homes Bureau, Chicago, spoke on Tuesday; Rev. James L. Gordon was Wednesday's attraction; H. Clay Miller, president of the San Francisco Chamber of Commerce appeared on Thursday, and Clifford J. Backstrand of the Armstrong Cork Company, delivered an educational talk on Friday on the manufacture of linoleum.

Harold R. Basford presided at all of the luncheons and introduced the distinguished guests in attendance.

A. B. MACBETH NOMINATED FOR A. G. A. VICE-PRESIDENCY

The nomination committee of the American Gas Association has nominated A. B. Macbeth, executive vice-president of the Southern California Gas Company, for the office of vice-president of the American Gas Association. The annual convention of the A. G. A., at which the election will take place, is scheduled for October 12 to 16, at Atlantic City.

Mr. Macbeth has been actively interested in a great many civic and associational enterprises during his service in the gas industry. Among other positions of wide importance that he has held is that of president of the Natural Gas Association of America.

RADIO LECTURES ARE TAPPAN SALES STUNT

Every Tuesday and Thursday in San Francisco, housewives can tune in on KPO and hear a lecture by Miss Virginia Tappan on various phases of cooking, planning of meals, balanced diet, use of the oven heat control and other things of interest and importance to the homemaker.

Members of the radio audience are invited to write to the broadcasting station if they would be interested in receiving a radio cook book, and in three weeks time over 1500 requests have been received in response. The cook books are then distributed through the dealers, who are given the names of those prospects who are in their particular territories.

A four day cooking school, held in San Francisco, in Santa Cruz, and now scheduled for Oakland, is another feature of this work. Miss Tappan speaks briefly at the classes of the school, but the actual demonstration is done by Miss Jean Shiveley, who instructs in oven canning of peaches.

ALFRED D. ABBEY DIES ATTENDING CONVENTION

Alfred D. Abbey, vice-president of the Nielan-Abbey Company, Los Angeles, while attending the Pacific Gas Association convention at Portland, succumbed to a severe attack of pneumonia. His death occurred Sunday evening, August 16.

PORTLAND COMPANY INCREASES GENERATING CAPACITY

Two new generators and additional compressor equipment have been installed recently by the Portland Gas and Coke Company, bringing their daily capacity up to 30,000,000 cu. ft. A heavy load of winter service is anticipated in Portland, and the new equipment will enable the company to meet peak demands.

CITY OF WINSLOW, ARIZONA, IS REBUILDING GAS PLANT

Additions being made at present to the gas plant and distribution system of Winslow, Arizona, will amount to $60,000 according to Manager Steinart of the municipal gas department, under whose direction the betterments are being made.

PANAMA-COLON GAS CO. MANAGER BUYS EQUIPMENT

Paul Vecker, manager of the Panama-Colon Gas Company of Panama, R. P., has just returned to Panama after a stay of several weeks in "the States." During his trip he contracted for approximately $125,000 worth of equipment for his company, induced several Pacific Coast gas men to enter gas service in Panama, and incidentally managed to arrive in Portland, Ore., in time for the P. C. G. A. convention.

POTTER Heating

For many years POTTER Engineers have pioneered the way in the advancement of modern Gas Heating Systems. They have developed Gas Heating to such a degree of perfection that today, POTTER Products have become a standard of comparison wherever dependable, safe, economical and healthful gas heating is discussed.

OUR BEST ASSET

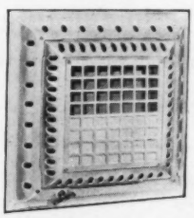
The tens of thousands of satisfied customers that our Organization has made through POTTER Gas Heating installations, is a JUST tribute to a satisfactory product—a gratification to conscientious effort.

THERE ARE MANY REASONS WHY IT IS BETTER TO INSTALL POTTER SYSTEMS

POTTER Vented Radiators

Only POTTER has these 7 POTTER Features (Cast Iron and Steel-Made)

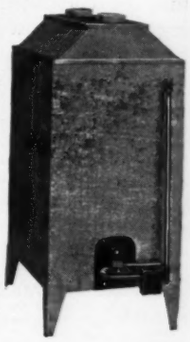
1. Condensation abolished. This does away with corrosion. Many years are added to the life of the Radiator.
2. Triple Circulation. The heat goes into the room, not up the flue.
3. Uniform warmth distribution. The air is never "cooked."
4. Quick heat. No other radiator heats so quickly as the light, efficient POTTER Steel-Made.
5. Aristocratic appearance. The POTTER Cast Iron Radiator is selected for the finest and largest homes.
6. Totally odorless always.
7. Not expensive.



COLE Floor and Wall Heaters

Made in heavy solid cast aluminum.

COLE is the only furnace manufactured that can be installed on either the first or second floor.



"MAGIC WAY" FURNACES

"MAGIC WAY" was the first, and has always been considered the leading Unit System of heating.

The principle of Unit Heating of modern buildings, brought to its present state of refinement through the study and efforts of this Organization, is based on the principle of an individual furnace or heater for each room or group of rooms to be heated.

This type of installation allows accurate temperature control in each room, regardless of the demand in other sections of the home.

POTTER quantity production now makes "MAGIC WAY" with electric controls, available to anyone who desires a gas furnace system.

The same features that make these well known POTTER-made appliances favorites with home builders and home owners, make them popular with churches, schools, theatres, auditoriums and factories.

The low cost of adequate heating by means of "MAGIC WAY" Vented Furnaces of either the Unit or Central Plant type, will be a revelation.

"MAGIC WAY" VALVES

By merely pressing a button, the temperature of any room may be regulated. This valve not only turns the heat on but it regulates the heat to suit your exact wants.

The HALL Floor Furnace

When the furnace type of heat is desired at low cost or when a basement is not available, use HALL Vented Floor Furnaces.

Potter Heating Includes:

"MAGIC WAY" UNIT FURNACES
"POTTER" GAS RADIATORS
"RA DO" GAS RADIATORS
"HALL" GAS FURNACES
"STEEL-MADE" GAS RADIATORS
"COLE" FLOOR AND WALL FURNACES

There Is a **POTTER System** for Every Need

POTTER RADIATOR CORPORATION

San Francisco—Oakland—Los Angeles—San Diego

Testing Natural Gas *for* Gasoline

(Continued from Page 21)

is inserted in the neck of the flask, the thermometer bulb being located just below the side outlet of flask;

4. The condenser box is filled with cracked ice and water. The temperature shall be maintained between 32° F. and 34° F. in the condenser box;

5. The beaker or jar in which the condensate receiver is placed is filled with cracked ice and water;

6. It is very important that the temperature in both the condenser box and the receiver jar be maintained the same. Furthermore, they should be stirred in order that an even temperature be maintained throughout;

7. A low flame is lighted under the flask. During the first few moments of the distillation the burner is off-set so that the flame impinges on the side of the flask just below the level of the glycerine. This materially assists in preventing foaming of the glycerine.

8. In case the glycerine should foam to the extent of filling the flask and flowing out the side outlet, the test is lost. When foaming occurs, this contingency can be met by playing a flame cautiously around the upper part of the flask. After the danger point from foaming is passed the flame is adjusted to the center of the flask and is so regulated that the distillation consumes about 45 minutes;

9. When the temperature reaches 350° F. the flame is cut off and the flask is allowed to cool; and,

10. After the flask has cooled enough to permit handling, disconnect from condenser inlet and flush out condenser with 20 c.c. water. The volume of condensate in the receiver is read and noted.

5. Computation of Results

The gallons of fluid per million cubic feet of gas may be computed conveniently according to the following formula:

$$\frac{264.2\ B}{A} = (X) \text{ gallons of fluid per million}$$

Where A = Corrected gas volume in cubic feet which has passed through the charcoal; and

B = The volume in cubic centimeters of the condensate recovered.

The result (X) is gallons per million; the volume of liquid is measured at 32° F.; and the volume of the gas is measured at 60° F. and 30″ of mercury pressure.

Appendix No. 1
Method for Determination of Degree of Activation of Charcoal

The apparatus for this test is shown on Diagram No. 6.

It is mounted on a suitable board frame. Air enters at A, passes through drying bottles B1, B2, and B3, containing sulphuric acid to remove water vapor. Next the air passes through two bottles containing carbon tetrachloride, kept at the temperature of melting ice. (These bottles should be iced for at least 30 minutes before making the test)

Saturated with carbon tetrachloride vapor at this temperature, the air vapor mixture passes through the flow meter, then through the charcoal tube, and finally into the gas flame in which the copper coil is suspended.

The glass charcoal tube should be exactly 14 m.m. in diameter, and the tube should be exactly 10 c.m. long. A perforated porcelain disk in the bottom of the tube holds the charcoal in place. The flow meter is calibrated so it passes exactly 770 cubic centimeters per minute.

In conducting the test the time is noted, the gas burner lighted to give a flame height of about 1¼″ and air supplied under positive pressure until the first indication of a green color in the flame is noticed. The time is again taken. The difference gives the carbon tetrachloride time for the charcoal. This time multiplied by three gives the chloropicrin time. The degree of activation referred to in these standards is the chloropicrin time.

It is advised that the charcoal be bought from a manufacturer who can guarantee a product which will meet the above specifications.

The California

Hot Water in One Minute

Two Sizes for 30 to 60 gallon tanks.

Two Colors, Black Japan or Gray Enamel

A Western Product

Sold Through Dealers Only

Manufactured by

Western Sheet Metal Works

1911 Mission St. San Francisco

Cribbage Fray Brings Split *in* Convention Ranks

PORTLAND, ORE., August 17.—Right out of a clear sky, during the general session of the P. C. G. A. came an announcement from "Cliff" Johnstone that brought an immediate split in the ranks of convention delegates Easterners glared menacingly at Westerners, and Westerners glared back; the air was charged with Inter-Coastal rivalry—and all over a cribbage match.

According to the announcement, "Big Hearted" Harry Bostwick, victor in the El Monte Pacific finals of two years previous, and "Big Hutchinson," the much-touted Atlantic representative, were to grapple for championship cribbage honors, on the mezzanine floor following the general session.

The fray came off per schedule, with "Kid" Langdon "handling" the Atlantic's hope, and Bob Thompson acting in "Big Hearted" Harry's corner. Cliff Johnstone's reputation for truth-telling in gas utility publicity gained for him the post of stakeholder, and "Baron" Van Britton was selected to referee. The heated combatants went round and round the board until "Big Hutch," in successive "goes" clearly demonstrated his ability to outpeg the Western cribber, and was awarded the trophy, a purse of 175 yen.

"Big Hutch" will defend his championship at the A. G. A. convention this October he states, and all challenges should be forwarded to "Kid" Langdon, care of *Western Gas.*

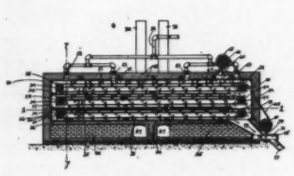
So. Calif. Gas Co. Achieves Big Daily Send-out

DURING the month of January of this year, the daily send-out of the Southern California Gas Company and the Midway Gas Company, without duplication, averaged over 200,000,000 cu. ft. Only once during the 31 days did the send-out fall below 190,000,000 cu. ft. during 24 hours, and on that day it only missed it by less than 42,000 cu. ft. The biggest day's send-out was the last day of January when over 223,934,000 cu. ft. were handled. This is a record day for the Southern and Midway. The next high day was on the 22nd of January when over 221,192,000 cu. ft. were handled. Even more interesting than these winter figures is the sending out for the two Companies for the 6th and 7th of August of this year, which amounted to over 203,000,000 cu. ft. and 207,000,000 cu. ft. respectively.

For comparison it is interesting to note that the record day for the gas company supplying the City of London with gas was 166,000,000 cu. ft., which was sold December 10. According to the most recent figures obtainable, the population of London is above 7,250,000.

THIS MONTH'S PATENTS PERTAINING TO THE INDUSTRY

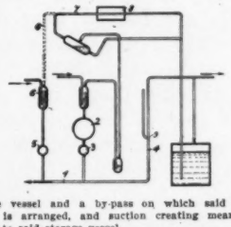
1,537,114. GAS-EXTRACTING APPARATUS. EMANUEL W. HARTMAN, Miami, Fla. Filed July 20, 1921. Serial No. 486,313. 5 Claims. (Cl. 202—14.)



1. In an apparatus for extracting gas from bitumen containing material, a retort consisting of two compartments in which the material is treated, means for heating said retort, a third compartment between the first two situated directly over said heating means into which the gas extracted from the material in both said first named compartments escapes, said third compartment having a solid bottom and an outlet at the top for said gas.

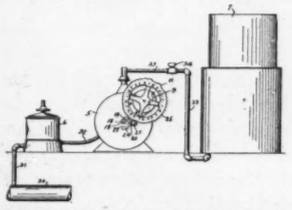
1,538,592. GAS-ANALYZING DEVICE. OLOF RODHE, Stockholm, Sweden. Filed May 20, 1924. Serial No. 714,710. 8 Claims. (Cl. 23—256.)

2. In a device of the kind described, a measuring vessel, a leveling vessel, liquid confining means communicating therewith, and gas introducing means communicating with the measuring vessel, an oxygen—and air



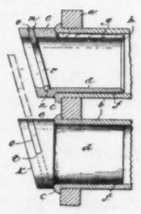
storage vessel and a by-pass on which said storage vessel is arranged, and suction creating means, connected to said storage vessel.

1,537,568. PROPORTIONAL-GAS-SAMPLE COLLECTOR. JOHN R. THOMPSON, Sr., and JOHN R. THOMPSON, Jr., Hanford, Calif. Filed June 13, 1923. Serial No. 645,214. 9 Claims. (Cl. 23—257.)



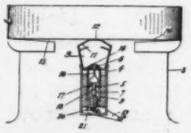
8. The method of accurately measuring and sampling the product from a gas main consisting in passing a portion of said product at a uniform pressure through a meter at a rate at all times bearing a fixed ratio to the rate of the product.

1,538,896. GAS RETARDING AND ADJUSTING DEVICE. FREDERICK W. POPE, Roxbury, Mass. Filed May 28, 1924. Serial No 716,361 8 Claims. (Cl. 137—112.)



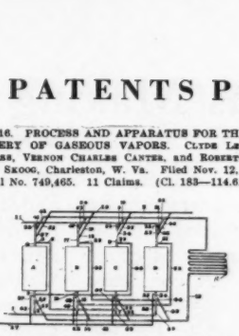
1. A device for retarding and adjusting the flow of gas in boiler tubes comprising a tubular body portion, a tubular section projecting from the body portion, and removable means carried by the device to retard and adjust the flow of gas.

1,534,577. AUTOMATIC GAS REGULATOR. EMIL ULRIK GUSTAV ERNST, Copenhagen, Denmark. Filed Sept. 23, 1920. Serial No. 412,408. 2 Claims. (Cl. 126—52.)



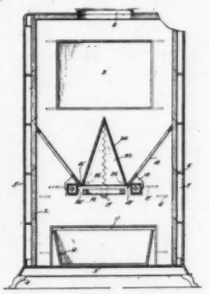
1. The combination with a gas burner for cooking and a gas supply conduit, of a valve adapted to control the amount of gas supplied through the said conduit, movable means actuated by the cooking utensil when in normal position on the burner to automatically operate the said valve to supply more or less gas proportional to the bottom area of said cooking utensil, and regulating means for the air supply operated simultaneously and in accordance with the said gas supply controlling means.

1,538,716. PROCESS AND APPARATUS FOR THE RECOVERY OF GASEOUS VAPORS. CLYDE LENNARD VORRES, VERNON CHARLES CANTER, and ROBERT WALFRED SKOOG, Charleston, W. Va. Filed Nov. 12, 1924. Serial No. 749,465. 11 Claims. (Cl. 183—114.6.)



1. A process for the extraction of gaseous vapors from gas mixtures which consists in a multiple step system, each step having the successive parts of absorption of recoverable vapors in a solid absorbent displacement absorbed vapors by distilling vapors and cooling with the lighter vapors carried along with the residue vapors from the previous absorption in multiple successive contacts, wherein forced cooling by conventional means is resorted to between each of the last mentioned successive multiple contacts.

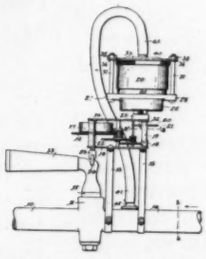
1,529,854. GARBAGE INCINERATOR. THOMAS TREGANOWAN and PAUL O'HARA, Pittsburgh, Pa. Filed Apr. 5, 1922. Serial No. 549,729. 3 Claims. (Cl. 110—8.)



1. In an incinerator of the type described, a casing, burner tubes extending transversely of the casing, strap irons at opposite sides of the casing forming bearings for said tubes, and inclined side grates engaging the side walls of the casing at the upper ends and supported at their lower ends on the burner tubes and forming an interlocking connection therewith, and a two-part wedge-shaped baffle having the parts pivoted at their lower ends in the side walls of the casing and positioned between the burner tubes and grate bars.

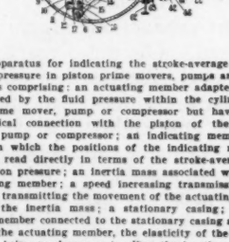
1,528,594. AUTOMATIC CUT-OFF FOR GAS CONDUCTORS. ALVA ARTRIP, Toler, Ky. Filed Sept. 17, 1924. Serial No. 738,318. 3 Claims. (Cl. 67—115.)

1. A device of the class described, comprising a frame, a spring supported in said frame and adapted to hold the valve of a gas conductor in open position, an enclosed shell, a flexible diaphragm within said shell, conductor means coupled at one end to said shell and adapted to be coupled at the other end of said gas conductor between the valve and the source of supply, a train of



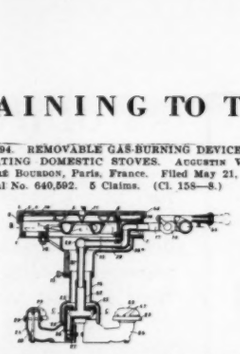
gears operative by said spring and including a toothed disk, a pin engageable by said diaphragm and extending into the paths of the teeth of said disk when gas pressure is applied to said diaphragm and operative to hold the spring strained and maintain the valve open.

1,532,692. APPARATUS FOR INDICATING AND REGISTERING THE STROKE AVERAGE OF THE PISTON PRESSURE IN PRIME MOVERS, PUMPS, OR COMPRESSORS. JOSEF GEIGER, Augsburg, Germany. Filed Dec. 8, 1924. Serial No. 754,677. 17 Claims. (Cl. 73—186.)



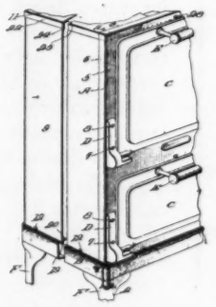
1. Apparatus for indicating the stroke-average of the piston pressure in piston prime movers, pumps and compressors comprising: an actuating member adapted to be controlled by the fluid pressure within the cylinder of the prime mover, pump or compressor but having no mechanical connection with the piston of the prime mover, pump or compressor; an indicating member; a scale on which the positions of the indicating member may be read directly in terms of the stroke-average of the piston pressure; an inertia mass associated with the indicating member; a speed increasing transmission device for transmitting the movement of the actuating member to the inertia mass; a stationary casing; and a spring member connected to the stationary casing and opposing the actuating member, the elasticity of the spring member being so chosen as to allow the inertia mass to remain at rest during occurring rapid changes of the fluid pressure in the engine, substantially as described.

1,525,494. REMOVABLE GAS-BURNING DEVICE FOR HEATING DOMESTIC STOVES. AUGUSTIN VICTOR ANDRÉ BOURDON, Paris, France. Filed May 21, 1923. Serial No. 640,592. 5 Claims. (Cl. 158—8.)



1. A gas burning device comprising a support, an upper burner carried by said support, means for supplying gas to said upper burner, a central vertical pipe depending from said support, lower burners carried by said pipe at the lower end thereof and in communication therewith, and means for changing the length of said pipe whereby the vertical distance between said upper and lower burners may be adjusted.

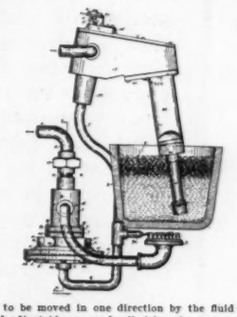
1,537,496. GAS STOVE. MINARD A. POSSONS, Cleveland, Ohio, assignor to American Stove Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 7, 1924. Serial No. 724,619 10 Claims. (Cl. 126—39.)



1. An oven housing comprising overlapping side and substantially U-shaped front walls, and a U-shaped angle iron overlapping, engaging and clamping both walls in position.

1,537,134. GAS-HEATER GOVERNOR. HOWARD WEBSTER PARTLOW, Utica, N. Y. Filed Nov. 26, 1923. Serial No. 676,960. 2 Claims. (Cl. 236—80.)

1. The combination with a melting-pot, of a gas-burner for heating said pot, a thermostat, a valve adapted to dispense fluid-pressure operated by the thermostat, a fuel-gas valve comprising a diaphragm, a plunger for operating said diaphragm, a second and larger diaphragm for actuating said plunger, said second diaphragm

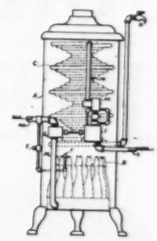


adapted to be moved in one direction by the fluid pressure, and adjustable means for limiting the movement of the second diaphragm to vary the flow of gas to the burner.

1,525,482. HEATER AND HEAT SAVER. JOHN M. WHITCOMB, Redwood Falls, Minn. Filed Jan. 18, 1924. Serial No. 686,987 2 Claims. (Cl. 126—94.)

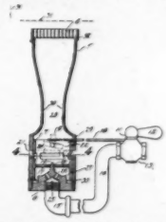
1. The combination with a furnace and a chimney, of inner and outer shells spaced to afford an air chamber therebetween, a smoke and flame chamber in the inner shell, a smoke pipe leading from the furnace and opening into the smoke and flame chamber at the front thereof, a second smoke pipe leading from the smoke and flame chamber at the rear thereof and opening into the chimney, air flues extending through the smoke and flame chamber and leading from the bottom of the air chamber to the top thereof, baffle plates in the smoke and flame chamber arranged to cause the products of combustion to travel from one smoke pipe section to the other in a zigzag course through the smoke and flame chamber and around the air flues, a cold air intake duct opening into the air chamber at the front thereof, and a collecting chamber leading from the air chamber, a combustion chamber opening into the smoke and flame chamber at the front thereof, and a burner in said combustion chamber.

1,523,038. AUTOMATIC WATER HEATER. GILBERT S. WALKER, Pittsburgh, Pa. Filed Nov. 4, 1919. Serial No. 335,646. 9 Claims. (Cl. 236—23.)



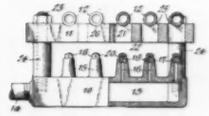
7. In a water heater, the combination with water actuated means for automatically putting the heater in operation when water is drawn, of a water actuated governor operating entirely independent of any other mechanism to automatically maintain a uniform flow of water regardless of variations of pressure.

1,537,335. GAS BURNER. CHARLES N. CROSS, Stanford University, Calif. Filed Mar. 14, 1921. Serial No. 451,989. 6 Claims. (Cl. 158—119.)



1. In a gas burner, an apertured chambered base having mounted thereon a needle, a burner tube fixedly attached to said base, a partitioned sleeve within said tube and arranged to move axially in respect to said tube when rotated, an orifice in said partition of said sleeve, and means for effecting the rotative and axial movements of said sleeve.

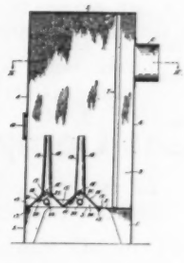
1,532,612. GAS BURNER. ISRAEL B. TAYLOR, Buffalo, N. Y. Filed June 14, 1924. Serial No. 720,120. 4 Claims. (Cl. 158—99.)



1. A gaseous fuel burner, comprising a supporting base, a gas-receiving chamber, a plurality of burner nozzles rising from said base, a grate disposed above said nozzles in spaced relation thereto, said grate having rows of openings therein, and a plurality of individual flame bars sustained over said grate and substantially in line with said rows of grate-openings.

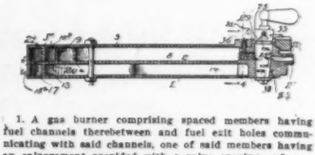
1,528,522. HEATER. JOSEPH BARSECK, Cleveland, Ohio. Filed Dec. 14, 1923. Serial No. 680,631. 3 Claims. (Cl. 126—85.)

1. A new article of manufacture comprising a pair of adjacent and separated mixing chambers each having a top formed of upwardly converging surfaces and a series of burners communicating through the peaks of said



chambers, the series of burners of one chamber being staggered with reference to those of the other series.

1,553,212. GAS BURNER. JAMES H. REINHARDT, East Orange, N. J. Filed Apr. 23, 1921, Serial No. 463,772. Renewed Oct. 3, 1923. 2 Claims. (Cl. 158—105.)



1. A gas burner comprising spaced members having fuel channels therebetween and fuel exit holes communicating with said channels, one of said members having an enlargement provided with a valve opening and passages providing communication between said opening and said channels, a valve in said opening having a bore and ports communicating therewith to deliver gas to said passages, and screws operative in said enlargement to independently control said passages.

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Future Gas Making Fuel *on* Coast

(Continued from Page 13)

fuel in many industries and homes and at some date these oil consumers will be demanding gas service provided we can reduce our costs by utilization of other fuels for gas production. A consumer once accustomed to the convenience of gas or oil will never revert to the use of solid fuel provided gas is available at a reasonable cost. Most domestic users of oil will eventually become gas consumers in the event oil becomes too high priced in relation to gas.

Trend of Oil Industry

The oil production of California has increased tremendously in the past few years, the consumption of gasoline is constantly on the increase and the increased use of the Diesel engine is creating a greater demand for Diesel oil. The future trend of the oil refinery business will no doubt be towards improved distillation methods and a greater use of cracking processes, giving a larger yield of gasoline and Diesel oil to offset the expected reduction in crude oil production. The cracking of the California oils will produce considerable coke which can be used as generator fuel in water gas machines and may furnish a fuel supply of some importance in the future gas plants located in the vicinity of oil refineries.

The oil reserves of California are estimated to be in excess of one and one half billion barrels, not including the possible oil yield from the enormous shale oil deposits. Shale oil may be a very important factor in future gas production as samples of this oil obtained from a commercial plant operating in Southern California appear to be an excellent oil for carburetting water gas. It may not be amiss at this time to ask for closer co-operation between gas companies, oil companies and coal producers in order that a program for future development of these industries may be worked out to the best advantage of all concerned.

Oil and Coal Resources

It is apparent from this rough outline that the manufacture of gas from fuels other than oil is a subject of vital importance to the Pacific Coast. This much is certain, however: the present known oil resources of California can be depleted in a comparatively short time if the ever increasing rate of production and consumption is continued. On the other hand, the estimated coal reserves available to the Pacific Coast are almost inexhaustible, two hundred and eighty three billion tons being the amount estimated by the United States Geological Survey. This estimate does not include Alaska or British Columbia, but is the estimated reserves of Utah, one hundred ninety-six billion tons, Washington, sixty-four billion tons, New Mexico, twenty-two billion tons and California and Oregon combined, one billion tons. The Utah coals are a high grade and show heating values ranging from 12,000 to 14,000 B. t. u. per pound. Washington has approximately eleven billion tons of good bituminous coal and the remainder of seventy-six billion tons available to the Pacific Coast are mainly sub-bituminous, high volatile and high ash coals. Alaska and British Columbia have large deposits of high grade coal and undoubtedly these fuels will be factors in the future gas manufacturing program. In other sections of the United States, gas coals are hauled long distances and it would not be a difficult matter to use Utah coals for gas production on the Pacific Coast provided these coals are found to be more economical than the use of local sub-bitumious coals.

In discussing the possible future fuels for gas making on the Pacific Coast, it is well to draw attention to the fact that this section consumes but a small quantity of coke and it probably would be difficult to develop a market for domestic coke in large quantities. With this thought in mind, the trend of gas manufacturing development will be along the lines of complete gasification, using a minimum of oil for enriching and eventually the complete elimination of oil for gas production purposes.

Using Sub-bituminous Coals

The use of local sub-bituminous coals for gas production offers many problems which can be solved; the successful use of these fuels in water gas sets in the Northwest offers one solution. The sub-bituminous coals in California yield large amounts of high gravity oil when distilled at low temperature; the coke or char remaining after distillation could be used in water gas sets. It may be necessary to process these coals in order to get the most economical gas production, as the oil yield may be valuable enough to justify such a process.

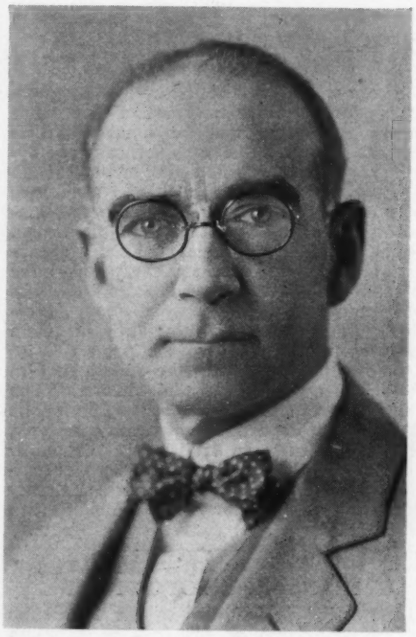
A very large deposit of sub-bituminous coal has recently been discovered in Northern California so that this State has a fuel supply ample for gas manufacturing purposes for a great many years provided some economical methods of utilization can be devised. As far as the future fuel for gas making purposes is concerned, there are enormous coal reserves available to the Pacific Coast gas companies and it is only a question of time until these fuels will be used for gas production.

Big Attendance Expected *at* Petroleum Exposition

TULSA, OKLAHOMA, is preparing to open wide her doors to some 300,000 visitors who will throng to that oil and gas center during the period of the third annual Petroleum Exposition and Congress, October 1 to 10. October 5, 6 and 7 are set aside particularly for the Petroleum Congress, which will attract members of the oil and gas industry from all parts of the country. The program for the Congress is in the hands of the board of governors of the Exposition, with W. G. Skelly, president of the Exposition, at their head.

$20,000,000.00 in Exhibits

Exhibits valued roughly at $20,000,000.00 will be displayed in the ten large brick and steel structures that house the Exposition, according to E. F. McIntyre, general manager. The California building will be given over to exhibits pertaining to refining,



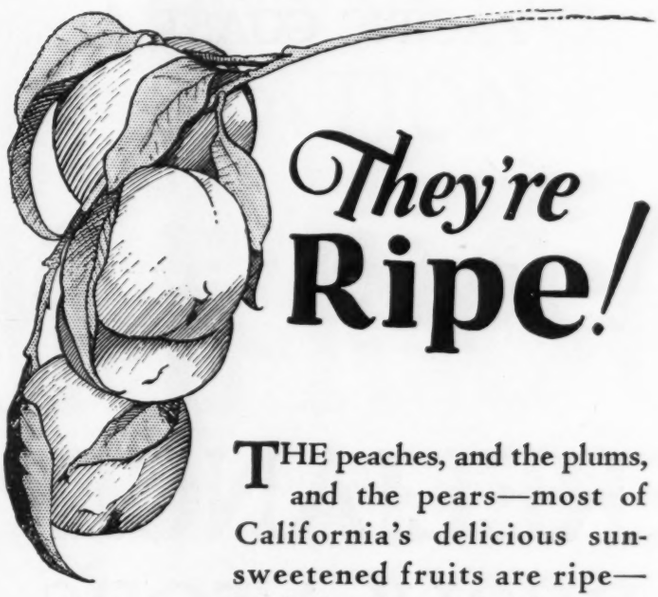
E. F. McIntyre

including both products and equipment. A comprehensive display of all gas and oil industry equipment has been arranged for, says Mr. McIntyre.

Petroleum Safety Day, October 8, will find safety teams from refineries and plants throughout the country competing for prizes offered through the Petroleum Safety Council, the United States Bureau of Mines, and the Safety Council of the Mid-Continent Oil and Gas Association. Ray E. Miller has charge of this feature, with the co-operation of various government officials.

Entertainment plans are being promoted on a bigger scale than ever before, and the management assures those attending the Exposition of a number of highly interesting spectacles. Chief among these is the Pageant of the Princesses.

Excursion railroad rates to the Exposition will be available on all lines, according to O. C. Staples, who heads the transportation committee.



They're Ripe!

THE peaches, and the plums, and the pears—most of California's delicious sun-sweetened fruits are ripe—ready for the people who enjoy the "treats" of Nature.

And this season they are abundant and the price is low. So eat all the fresh fruit you want—then save some for the wintry days to come.

Tell your dealer —TODAY— what fruit you'll need for home-canning

Modern methods make home-canning easy and economical—especially with the oven temperature-control of the improved gas ranges.

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One of the cooperative advertisements published in all newspapers in the Gas territory served by the Pacific Gas and Electric Company.

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RELIANCE MANUFACTURING CO.
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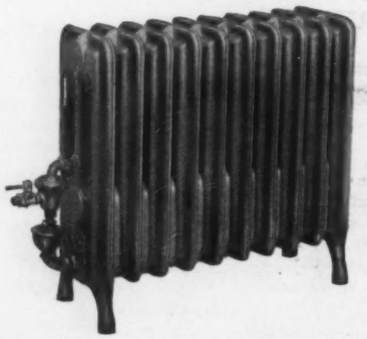

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A. G. A. Convention *to* Feature Utility Publicity

ONE of the principal offerings of the American Gas Association convention at Atlantic City, October 12 to 16, is to be a national conference of the state committees on public utility information. This conference will be held under the auspices of the publicity and advertising section of the Association, and a contribution to the general program of the convention will be made on Wednesday morning October 15.

Two sessions will make up the program of the national public utility information conference, on Wednesday and Thursday afternoons. An exhibit of publicity and advertising work promoted by some of the state committees will be held in connection with the sessions.

Illinois expects to show the results of public addresses on the utility business delivered in that State by its speakers' bureau. Pennsylvania will show its special convention news bulletins. Iowa will display its pamphlets, Georgia will show what it has done to attract industries to that state, and Michigan will illustrate its activities during its "Open House Week."

Extent of Information Work

Those who have not followed the growth of the public utility information state committee movement will be amazed at its present extent. The gas branch of the utility group originated the movement on April 1, 1919, when the Illinois committee was organized. Today there are 28 committees operating in 36 states of the Union. Nineteen of the committees maintain speakers' bureaus; 18 of them carry on active educational work in schools and colleges and many of them supply display advertising service to utilities; all of them furnish news services to the press.

The theme underlying the American Gas Association convention this year is "The Future of the Gas Industry." The public information department of utility activity, which constitutes so vital a part of public relations work and hence will be a formative force in the future of utilities, is rightly deserving of the important place being given it on the A. G. A. convention program.

CARL A. BOYCE NOW OPERATES FRANKLIN & BOYCE FIRM

Notice has been issued of the dissolution of co-partnership of the firm of Franklin and Boyce, 930 South Main Street, Los Angeles, gas appliance retailers. The business will be continued at the same location by Carl A. Boyce.

RELIANCE REGULATORS FOR A. G. A. LABORATORY AT CLEVELAND

Two Reliance Regulators are being installed in the new gas appliance testing laboratory established at Cleveland, Ohio, by the American Gas Association, according to W. M. Thompson, president of the Reliance Manufacturing Company, Pasadena, Calif.

STANDARD OIL CUT IN CALIF. FUEL OIL PRICES

A cut amounting to 30 cents a barrel was announced late in August by the Standard Oil Company of California, effective immediately in both northern and southern sections of the State. Gasoline and crude oil prices are not affected, according to the Los Angeles office of the Company. Fuel oil price at the Richmond refinery is now $1.25, and at the El Segundo refinery and Los Angeles Harbor is $1.20 a barrel.

Portland Firm Distributes *for* New York Company

APPOINTMENT of the Northwest Gas and Electric Equipment Company, of Portland, Ore., as exclusive Pacific Coast distributors for the Standard Gas Equipment Corporation of New York was announced during August.

As announced by W. M. Kapus, president of the Portland firm, branch offices will be established for the new lines at Los Angeles and San Francisco, with resident agents in charge. The firm plans to specialize on the distribution of gas ranges, and a stock of approximately $100,000.00 in value will be carried on the Coast.

Mr. Kapus has put in 25 years of service in the gas industry on the Pacific Coast and is one of the original incorporators of the Northwest Gas and Electric Equipment Company. He began his service with the Portland Gas and Coke Company, has been a director of the Pacific Coast Gas Association and is one of the organization's past presidents.

The Standard Gas Equipment Corporation of New York has completed arrangements for the absorption of the General Gas Appliance Company, the William M. Crane Company of New York and the Baltimore Gas Appliance Company of Baltimore.

WELL IN MEXICO PRODUCES 20,000,000 CU. FT.

Well No. 41, brought in by the Sinclair-Empire Gas and Fuel Company in the Calcalilao district, Mexico, at 1775 feet, is estimated to yield a daily gas flow of 20,000,000 cu. ft. The well is one of the shallowest to be brought in thus far in the Panuco district.

CALIFORNIA GASOLINE COMPANY COMPLETES PLANT

The California Gasoline Company has just completed a plant on the Brown-More Oil Company's tract in the Inglewood field. The plant, which is being built in units, will have an ultimate capacity of 10,000,000 cu. ft. of gas a day, with an estimated production of 7,000 to 8,000 gallons of gasoline.

COLORDO SPRINGS GAS CO. COMPLETES ORGANIZATION

Announcement of the completion of organization by the Colorado Springs Gas Company includes names of officers for the corporation. John L. Bennett, an attorney of Colorado Springs now acting as counsel for the co-receivers of the Colorado Springs Light, Heat and Power Company, is president; J. Frank Dostal, vice-president; Frank Vogler, manager; Raymond D. Mervine, secretary and treasurer; and J. B. Lang, superintendent of the gas works.

GASSER STRUCK NEAR DUCOR

Word from Porterville, Calif., tells of a 10,000,000 cu. ft. gasser struck at a depth of 3,600 feet, near Ducor. According to J. P. Hinckley, the operator, the gas is " wet," with a showing of oil. This field has to date been rated as wildcat territory.

AMERICAN GASOLINE CO. PLANT

A gasoline plant has been finished by the American Gasoline Company on the Shell Company's ridge lease in the Inglewood field, Southern California. Two more units are to be completed by the same company by September 15.

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"WEMCO" Double Pump Valve

For SIMPLEX and DUPLEX PUMPS

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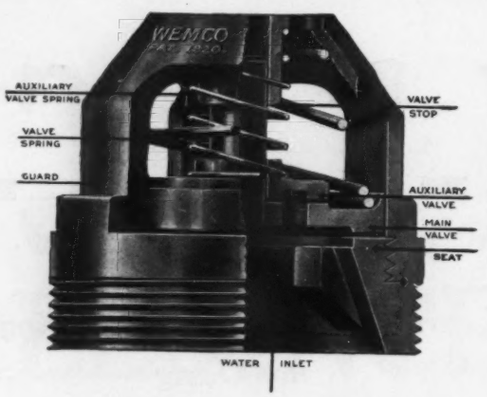

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Humble Oil & Refining Co.
Gulf Refining Co.
Phillips Petroleum Co.
Magnolia Petroleum Co.
Richfield Oil Co.
Galena Signal Oil Co.
The Texas Co.
The Pure Oil Co.
American Refining Co.
Consolidated Gasoline Co.
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Highlights *of the* Thirty-Second Convention

(Continued from Page 17)

and the type will be held for a reasonable time following the first imprint so that anyone desiring to order separate sections may do so and will be furnished with them at cost.

During the sixty days allowed for the completion of the manual the Secretary will make an effort to determine the demand for copies of the book.

Endorsement of Western Gas

The Convention officially designated *Western Gas* as the official medium to carry Association announcements, and empowered the officers of the Association to terminate this arrangement at their discretion.

Western Gas was initiated through the efforts of the Association, the first issue appearing in May, 1925, and in that and the four issues subsequently printed it has amply justified the hopes of the Association as to its usefulness to the Pacific Coast gas industry. Starting with the October issue a portion of the dues of each member of the Association will be allotted toward payment of a subscription to the journal and each member will receive a copy of *Western Gas* each month. There will be no increase in dues to cover this added service.

The bulletins and monthly messages previously issued by the Secretary will be discontinued.

NEW ASS'T SUPT. FOR MIDWAY

Roy Jasper Haskell has been made Assistant Superintendent of Construction of the Midway Gas Company, Los Angeles. He is relieving E. S. Cole, who has been transferred to Ventura.

CODY, WYOMING, HAS 60,000,000 CUBIC FOOT GASSER

At a depth of 2,400 feet the Ohio Oil Company struck a gas flow of 60,000,000 cu. ft. a day in the Oregon Basin near Cody, Wyoming. The rock pressure was estimated at 1,100 pounds. If the gas flow continues to hold up, the town of Cody should reap considerable returns as a gas center.

PORTLAND COMPANY GAINS 2,467 METERS IN SIX MONTHS

A gain of 2,467 meters for the first half of 1925 is announced by the Portland Gas and Coke Company. This gain brings the total of meters in use July 1, 1925, to 95,229. Additions to the Company's gas plant approved for 1925 amounted to $2,343,060.00.

HIGHEST KNOWN TEMPERATURE PRODUCED BY GAS

"Fuel and Metallurgical Reports," a publication of the University of Leeds, England, reports a temperature of 7677 deg. Fahr. reached through the use of ordinary manufactured gas and oxygen. This is said to be the highest temperature ever produced by man.

Gas Fraternity Gathers *at* Portland *for* Convention

(Continued from Page 12)

Pacific Gas and Electric Company has two wins on this trophy, which must be won three times to be held permanently. W. M. Thompson, manager of the Reliance Manufacturing Company of Pasadena, got a leg on the trophy in 1921; Frank A. Easton, of the San Joaquin Light and Power Company, in 1922; Ernest Weston in 1923; Paul Overton in 1924; and Ernest Weston again this year.

Two other entertainment features will long be remembered; the convention ball, which took place the evening of Thursday, August 20, and the annual banquet, which was the final word to the 32nd convention, held Friday night, August 21.

No attempt will be made in this issue of *Western Gas* to review the execllent program which made this convention a real contribution to progress of the gas industry in the West. Our August issue contained a full outline of the program, including all committee reports and papers delivered. One noteworthy feature which attracted considerable attention was the exhibit of gas utility advertising, containing specimens of the best in company advertising on the Coast. In connection with this display was an exhibit of "wrinkles"—new ideas which contained some stimulating material on company operation.

The technical section was adjudged to have made the outstanding contribution to the convention program, in number and value of papers submitted, and hence was awarded the Basford Perpetual Trophy, with the accounting section as a close contender.

On the Pacific Coast Gas Association page of this issue of *Western Gas* will be found Executive Secretary Johnstone's comment upon the convention, including a summary of its accomplishments.

Gas Industry Operating *in* Revolutionary Era

(Continued from Page 17)

new thoughts into the industry. It is intended only to point out some of the paramount problems that we can only solve by concerted thought and effort. Our industry is coming—not going, and how large it may become depends entirely upon ourselves.

CEMENT PLANT MAY USE GAS

Installation of a $350,000.00 natural gas plant by the Monolith Portland Cement Company to replace a present fuel oil system is rumored at Bakersfield. Gas, it is thought, would be obtained by tapping one of the lines leading from Elk Hills to Los Angeles.

Stockton Fire Brick Company

MANUFACTURERS of Superior Refractories for Gas Generators and Boilers, all types of Baffle and Furnace Tile. Our "*Gasco*" Brick, developed by us after extensive research work, are unequalled for service in the Gas industry and are being very generally used by the gas plants in this territory. We also manufacture a high grade Insulating Brick under the trade name "*Diatex*" and "*Stockton Brand*" High Temperature Furnace Cement.

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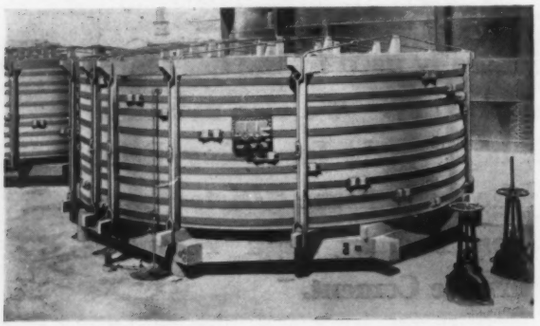

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A highly active Iron precipitate, with a high Iron content. A thoroughly impregnated and porous bulky mass, ready to use, no mixing, no delay, always uniform

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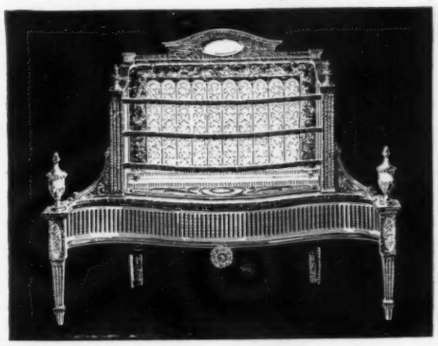
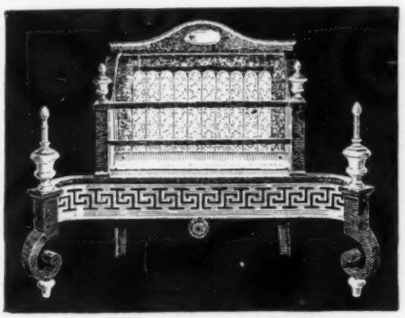
Three New Aristocrats of the Fireplace

Below:
Humphrey Radiantfire No. 80. Replica of Early English Basket, Period 1660 to 1770



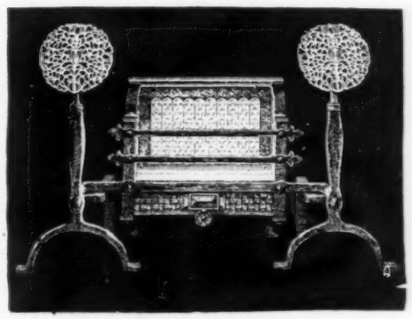
No. 85

Below:
Humphrey Radiantfire No. 90. Early English Basket, with replica of 16th century Haddon Hall andirons



No. 80

Above:
Humphrey Radiantfire No. 85. English Basket, Adam period about 1790



No. 90

THE bold vision of the makers of the Humphrey Radiantfire first saw the trend of public favor toward Period Designs, and Humphrey creative craftsmen began to design Radiantfire models of authentic style-origin and unique beauty. The wide popularity of the Period Models has brought the need to add new designs. . . . . Humphrey Radiantfire leadership is well expressed in these new Period Models, three of which are shown.

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As faithful as the Dutch Boy who stopped a small leak and prevented it from developing into a large and costly one, Lattimer-Stevens Meter Connections protect your gas meters against dangerous and expensive leaks.

L. S. Meter Connections provide lasting protection by holding the meter rigidly in position. Easily adjustable, they allow for differences in meter widths; their rigidity avoids strain as a result of sagging lines, and the patented meter shelf compensates washer shrinkage and prevents leaks by its constant pressure.

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